Graduate College

**Dean**
- John C. Keller

**Associate Deans**
- Michelle L. Campo, Steven M. Varga

**Assistant Deans**
- Heidi Arbisi-Kelm, Jennifer Teitle

**Website:** https://www.grad.uiowa.edu

The University of Iowa has been a leading center of advanced study for more than a century. Presently, the Graduate College accounts for nearly one-fifth of the University's total enrollment. This high ratio reflects the breadth of the University's graduate programs and resources, the strength of a graduate faculty with a long tradition of personal and professional concern for students, and the opportunities afforded graduate students for involvement, recognition, and support.

The Graduate College is responsible for the review and approval of proposals for new graduate programs and for the periodic survey and evaluation of existing programs. Through its administration of scholarship, fellowship, and research assistantship funds, the college encourages research and strengthening of departments. Additionally, the college works with the other colleges and departments of the University to formulate policies concerning selection, supervision, and support of graduate students.

The faculty of the Graduate College is made up of all University tenure-track faculty members at the ranks of assistant professor, associate professor, and professor. A 17-member Graduate Council, elected from and by the graduate faculty and the Graduate Student Senate, is the executive committee of the graduate faculty and is advisory to the dean of the Graduate College.

**Manual of Rules and Regulations of the Graduate College**

The current edition of the Manual of Rules and Regulations of the Graduate College is available on the college's website.

**Office of Graduate Diversity, Equity, and Inclusion**

The Office of Graduate Diversity, Equity, and Inclusion is dedicated to providing academic assistance to graduate students from underrepresented populations across graduate programs; to helping build a sustainable practice of inclusion that nourishes and attracts underrepresented graduate students campuswide; and to helping build community through individual and group activities focused on successful academic progress.

**Graduate Student Success**

The Graduate College takes a holistic approach to graduate student and postdoctoral scholar preparation. Whether a student's goal is a career in academia, industry, government or elsewhere, professional development can expand one's options and make a student more marketable to employers.

The Graduate Student Success Office can help graduate students in the realms of:
- communication
- research and publication
- diversity
- funding
- teaching
- leadership
- careers
- wellness

**Research Resources**

Many of the University's diverse research activities are centrally administered by the Office of the Vice President for Research, which has a cooperative relationship with the Graduate College.

**Graduate Student Senate**

The Graduate Student Senate is the University graduate student body representative organization. Representatives are elected annually from each University department that has a graduate degree program. The senate's primary purpose is to serve the interests of the graduate student body in matters affecting its welfare. The senate advises the dean of the Graduate College on matters pertaining to the college.

**Programs**

**Degrees Offered**

The Graduate College confers the Master of Arts (M.A.), Master of Science (M.S.), Master of Accountancy (M.Ac.), Master of Arts in Teaching (M.A.T.), Master of Computer Science (M.C.S.), Master of Fine Arts (M.F.A.), Master of Health Administration (M.H.A.), Master of Public Affairs (M.P.Aff.), Master of Public Health (M.P.H.), Specialist in Education (Ed.S.), Master of Science in Nursing (M.S.N.), Master of Social Work (M.S.W.), Doctor of Philosophy (Ph.D.), Doctor of Education (Ed.D.), Doctor of Musical Arts (D.M.A.), Doctor of Nursing Practice (D.N.P.), Doctor of Physical Therapy (D.P.T.), and Doctor of Audiology (Au.D.) degrees.

The college currently confers degrees in the following major fields:

- Accounting: M.Ac. ²
- Actuarial Science: M.S. ²
- African American World Studies: M.A. ¹
- American Studies: M.A. ², Ph.D.
- Anatomy and Cell Biology: M.S. ³, Ph.D. ³ (see Biomedical Science)
- Anthropology: M.A. ¹, Ph.D.
- Applied Mathematical and Computational Sciences: Ph.D.
- Art: M.A. ², M.F.A.
- Art History: M.A. ¹, Ph.D.
- Asian Civilizations: M.A. ¹
- Astronomy: M.S. ¹
- Athletic Training: M.S. ¹
- Biochemistry: M.S., Ph.D.
- Biology: M.S. ³, Ph.D. ³ (see Integrated Biology)
- Biomedical Engineering: M.S. ¹, Ph.D.
- Biomedical Science: M.S. ¹, Ph.D.
- Biostatistics: M.S. ², Ph.D.
- Book Arts: M.F.A.
- Business Administration: M.A. ¹, Ph.D.
Business Analytics: M.S.
Chemical and Biochemical Engineering: M.S.¹, Ph.D.
Chemistry: M.S.¹, Ph.D.
Civil and Environmental Engineering: M.S.¹, Ph.D.
Classics: M.A.¹, Ph.D.
Clinical Investigation: M.S.¹
Communication Studies: M.A.¹, Ph.D.
Community and Behavioral Health: M.S.², Ph.D.
Comparative Literature—Translation: M.F.A.
Computer Science: M.S.¹, M.C.S.², Ph.D.
Dance: M.F.A.
Dental Public Health: M.S.
Economics: M.A.¹, Ph.D.
Education: M.A.¹, M.A.T.², Ed.S.², Ph.D.
Educational Policy and Leadership Studies: M.A.¹, Ed.D.², Ed.S.², Ph.D.
Electrical and Computer Engineering: M.S.¹, Ph.D.
Elementary Education: M.A., Ph.D.
Engineering and Information Science: M.S.²
English: M.A.¹, M.F.A., Ph.D.
Epidemiology: M.S.¹, Ph.D.
Exercise Science: M.S.¹, Ph.D.
Film and Video Production: M.A.¹, M.F.A.
Film Studies: M.A.¹, Ph.D.
Finance: M.S.¹
Free Radical and Radiation Biology: M.S.³, Ph.D.³ (see Biomedical Science)
French and Francophone World Studies: M.A.¹, Ph.D.
Genetics: Ph.D.
Geography: M.A.¹, Ph.D.
Geoscience: M.S.¹, Ph.D.
German: M.A.¹, Ph.D.
Greek: M.A.¹
Health and Human Physiology: M.S.¹, Ph.D.
Health and Sport Studies: M.A.⁴, Ph.D.
Health Management and Policy: M.H.A.², Ph.D.³
Health Policy, M.S.
Health Services and Policy: Ph.D.
History: M.A.¹, Ph.D.
Human Toxicology: M.S., Ph.D.
Immunology: Ph.D.
Industrial Engineering: M.S.¹, Ph.D.
Informatics: M.S.¹, Ph.D.
Integrated Biology: M.S.¹, Ph.D.
Integrated Physiology: Ph.D.² (see Health and Human Physiology)
Interdisciplinary Studies: M.A.¹, M.F.A., M.S.¹, Ph.D.
International Studies: M.A.³
Journalism: M.A.¹
Latin: M.A.¹
Library and Information Science: M.A.¹
Linguistics: M.A.¹, Ph.D.
Mass Communications: Ph.D.
Mathematics: M.S.¹, Ph.D.
Mechanical Engineering: M.S.¹, Ph.D.
Microbiology: M.S., Ph.D.
Molecular and Cellular Biology: Ph.D.³ (see Biomedical Science)
Molecular Biology: Ph.D.³ (see Biomedical Science)
Molecular Physiology and Biophysics: M.S.³, Ph.D.³ (see Biomedical Science)
Music: M.A.¹, M.F.A., D.M.A., Ph.D.
Neuroscience: Ph.D.
Nursing: M.S.N.¹, D.N.P., Ph.D.
Occupational and Environmental Health: M.S.¹, Ph.D.
Operative Dentistry: M.S.²
Oral Science: M.S., Ph.D.
Orthodontics: M.S.
Pathology: M.S.
Pharmacology: M.S.³, Ph.D.³ (see Biomedical Science)
Pharmacy: M.S.¹, Ph.D.
Philosophy: M.A.¹, Ph.D.
Physical Rehabilitation Science: M.A.¹, Ph.D.
Physical Therapy: D.P.T.
Physics: M.S.¹, Ph.D.
Political Science: M.A.¹, Ph.D.
Psychological and Quantitative Foundations: M.A.¹, Ed.S.², Ph.D.
Psychology: M.A.¹, Ph.D.
Public Affairs: M.P.Aff.²
Public Health: M.P.H.²
Rehabilitation and Counselor Education: M.A.¹, Ph.D.
Religious Studies: M.A.¹, Ph.D.
Science Education: M.S.¹, M.A.T.², Ph.D.
Second Language Acquisition: Ph.D.
Secondary Education: M.A., M.A.T., Ph.D.
Social Work: M.S.W.¹, Ph.D.
Sociology: M.A.¹, Ph.D.
Spanish: M.A.¹, Ph.D.
Spanish Creative Writing: M.F.A.
Special Education: M.A.¹, Ph.D.
Speech and Hearing Science: Ph.D.
Speech Pathology and Audiology: M.A.¹, Au.D.
Statistical Genetics: Ph.D.²
Statistics: M.S.¹, Ph.D.
Stomatology: M.S.²
Strategic Communication: M.A.²
Teaching and Learning: M.A.¹, M.A.T.², Ph.D.
Theatre Arts: M.F.A.
Translational Biomedicine: M.S.², Ph.D.³
Urban and Regional Planning: M.S.²
Women’s Studies: Ph.D.³

¹ Degree offered with or without thesis
² Nonthesis degree
³ Student entry suspended

Interdisciplinary Degree Programs

The Graduate College participates in a number of University of Iowa interdisciplinary degree programs. Detailed information about the following master’s and doctoral degree programs is provided later in these Graduate College sections of the Catalog: Applied Mathematical and Computational Sciences, Genetics, Human Toxicology, Immunology, Informatics, Molecular Medicine, Neuroscience, and Translational Biomedicine.

In addition to the degree programs listed above, the graduate faculty has authorized the awarding of interdisciplinary master’s and doctoral degrees. Students seeking approval for interdisciplinary master’s and doctoral programs must previously have been admitted to and enrolled in a departmental program in the Graduate College. See sections X.A. and XII.D. in the Manual of Rules and Regulations of the Graduate College on the college’s website.
**Combined Programs Offered Through the Graduate College**

Various combined programs have been developed whereby students work simultaneously toward two degrees. Consult the appropriate Catalog sections for more information. Established combined graduate programs include, but may not be limited to:

**B.S. in Biochemistry/Ph.D. in Biochemistry**

The combined B.S. in biochemistry/Ph.D. program in biochemistry enables Bachelor of Science students majoring in biochemistry to begin work toward the Ph.D. while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the B.S. and Ph.D. degree requirements. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the Carver College of Medicine; see the Department of Biochemistry in the Catalog.

**B.A. in Biology/M.P.H. (Epidemiology Subprogram) or M.S. in Epidemiology**

The combined B.A. in biology/M.P.H. with an epidemiology subprogram and the combined B.A. in biology/M.S. in epidemiology enable Bachelor of Arts students majoring in biology to begin work toward the M.P.H. or M.S. while completing the bachelor's degree. Students admitted to either program may count 12 s.h. of credit toward both the B.A. and the M.P.H. or M.S. degree requirements; they also may maximize their selection of upper-level classes for advanced training in epidemiology. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the College of Public Health; see the B.A. in biology; Master of Public Health, M.P.H. (epidemiology subprogram); and M.S. in epidemiology in the Catalog.

**B.A. in Biology, Chemistry, Environmental Sciences, Physics/ M.A.T. (Science Education Subprogram)**

The combined B.A./M.A.T. program with a science education subprogram enables Bachelor of Arts students majoring in biology, chemistry, environmental sciences, or physics to begin work toward the M.A.T. while completing the bachelor's degree. Students admitted to the program may count 18 s.h. of credit toward both the B.A. and M.A.T. degree requirements. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the College of Education; see the Department of Biology in the Catalog.

**B.A. or B.S. in Computer Science/M.C.S.**

The combined B.A. or B.S. in computer science/M.C.S. program enables undergraduate students majoring in computer science to begin work toward the M.C.S. while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of coursework, typically advanced technical courses and electives, toward both the bachelor's and the M.C.S. degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Computer Science in the Catalog.

**B.A. or B.S. in Environmental Policy and Planning/M.S. in Urban and Regional Planning**

The combined B.A. or B.S. in environmental policy and planning/M.S. in urban and regional planning enables undergraduate students majoring in environmental policy and planning to begin work toward the M.S. while completing the bachelor's degree. Students admitted to the program may count a limited amount of credit toward both the B.A. or B.S. and M.S. degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Environmental Policy and Planning and the M.S. in urban and regional planning in the Catalog.

**B.A. in Geography (Geographic Information Science Track) or B.S. in Geography/M.S. in Informatics (Geoinformatics Subprogram)**

The combined B.A. in geography with a geographic information science track or B.S. in geography/M.S. in informatics with a geoinformatics subprogram enables undergraduate students majoring in geography to begin work toward the M.S. while completing the bachelor's degree. Students admitted to the program may count a limited amount of credit toward both the B.A. or B.S. and M.S. degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Geographical and Sustainability Sciences and the M.S. in informatics (geoinformatics subprogram) in the Catalog.

**B.A. in German/M.A. in German**

The combined B.A./M.A. program in German enables undergraduate students majoring in German to begin work toward the M.S. while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the B.A. and M.A. degree requirements. They also have the opportunity for early entrance into advanced courses in German. Offered by the Graduate College and the College of Liberal Arts and Sciences; see German in the Catalog.

**B.A. in Linguistics/M.A. in Linguistics (TESL Subprogram)**

The combined B.A./M.A. program in linguistics with a TESL (Teaching English as a Second Language) subprogram enables students majoring in linguistics to begin work toward the M.A. while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of advanced coursework toward both the B.A. and M.A. degree requirements and may take selected graduate-level courses before they have been awarded the B.A. degree. They also may gain experience teaching ESL at the college level early in their graduate careers. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Linguistics in the Catalog.

**B.A. in Mathematics/M.A.T. (Mathematics Education Subprogram)**

The combined B.A./M.A.T. program with a mathematics education subprogram enables Bachelor of Arts students majoring in mathematics to begin work toward the M.A.T. while completing the bachelor's degree. Students admitted to the program may count 18 s.h. of credit toward both the
B.A. and M.A.T. degree requirements. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the College of Education; see the B.A. in mathematics and the Master of Arts in Teaching, M.A.T. (mathematics education subprogram) in the Catalog.

**B.S. in Microbiology/Ph.D. in Microbiology**

The combined B.S. in microbiology/Ph.D. in microbiology enables undergraduate students majoring in microbiology to begin work toward the Ph.D. while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the B.S. and Ph.D. degree requirements. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the Carver College of Medicine; see the B.S. in microbiology and the Ph.D. in microbiology in the Catalog.

**B.A. in Psychology/M.P.H. (Community and Behavioral Health Subprogram)**

The combined B.A. in psychology/M.P.H. program with a community and behavioral health subprogram enables Bachelor of Arts students majoring in psychology to begin work toward the M.P.H. while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the B.A. and M.P.H. degree requirements. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the College of Public Health; see the B.A. in psychology and the Master of Public Health, M.P.H. (community and behavioral health subprogram) in the Catalog.

**B.S. in Statistics/M.P.H. (Biostatistics Subprogram)**

The combined B.S. in statistics/M.P.H. program with a biostatistics subprogram enables Bachelor of Science students majoring in statistics to begin work toward the M.P.H. while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the B.S. and M.P.H. degree requirements. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the College of Public Health; see B.S. in statistics and the Master of Public Health, M.P.H. (biostatistics subprogram) in the Catalog.

**B.S. in Statistics/M.S. in Statistics**

The combined B.S./M.S. program in statistics enables undergraduate students majoring in statistics to begin work toward the M.S. while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of credit toward both the B.S. and M.S. degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Statistics and Actuarial Science in the Catalog.

**B.S. in Therapeutic Recreation/M.S. in Health and Human Physiology (Child Life Subprogram)**

The combined B.S. in therapeutic recreation/M.S. in health and human physiology with a child life subprogram enables undergraduate students majoring in therapeutic recreation to begin work toward the M.S. while completing the bachelor's degree. Students admitted to the program may count a limited number of credit toward both the B.S. and M.S. degree requirements. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Health and Human Physiology in the Catalog.

**B.A. or B.S./M.S. in Business Analytics (Career Subprogram)**

The combined B.A. or B.S./M.S. in business analytics with a career subprogram allows the following undergraduate students majoring in actuarial science (B.S.); applied physics (B.S.); biology (B.A. or B.S.); chemistry (B.A. or B.S.); computer science (B.A. or B.S.); criminology, law and justice (B.A. or B.S.); data science (B.S.); economics (B.A. or B.S.); English (B.A.); English and creative writing (B.A.); enterprise leadership (B.A.); ethics and public policy (B.A.); history (B.A.); informatics (B.A. or B.S.); interdepartmental studies (B.A.); journalism and mass communication (B.A.); linguistics (B.A.); mathematics (B.A. or B.S.); physics (B.A. or B.S.); political science (B.A. or B.S.); psychology (B.A. or B.S.); sociology (B.A. or B.S.); and statistics (B.S.) to begin work toward the M.S. in business analytics while completing their undergraduate degree. This provides students with the opportunity to complete both degrees in less time than it would take them to complete the degrees separately. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the Tippie College of Business; see the M.S. in business analytics (career) in the Catalog.

**B.A. or B.S./M.S. in Finance**

The combined B.A. or B.S./M.S. in finance allows the following undergraduate students majoring in actuarial science (B.S.); applied physics (B.S.); biology (B.A. or B.S.); chemistry (B.A. or B.S.); computer science (B.A. or B.S.); criminology, law and justice (B.A. or B.S.); data science (B.S.); English (B.A.); English and creative writing (B.A.); enterprise leadership (B.A.); ethics and public policy (B.A.); history (B.A.); informatics (B.A. or B.S.); interdepartmental studies (B.A.); journalism and mass communication (B.A.); linguistics (B.A.); mathematics (B.A. or B.S.); physics (B.A. or B.S.); political science (B.A. or B.S.); psychology (B.A. or B.S.); sociology (B.A. or B.S.); and statistics (B.S.) to begin work toward the M.S. in finance while completing their undergraduate degree. This provides students with the opportunity to complete both degrees in less time than it would take them to complete the degrees separately. Offered by the Graduate College, the College of Liberal Arts and Sciences, and the Tippie College of Business; see the M.S. in finance in the Catalog.

**Combined Bachelor's and Public Health Graduate Degrees**

The College of Public Health and various undergraduate programs have developed combined programs in which students pursue the bachelor's degree, either a B.A. or a B.S., and a public health graduate degree, M.A., M.P.H. or M.S., in five years instead of six. Offered by all undergraduate colleges, the Graduate College, and the College of Public Health; see College of Public Health in the Catalog.

**B.B.A./M.S. in Business Analytics (Career Subprogram)**

The combined B.B.A./M.S. in business analytics with a career subprogram enables undergraduate students majoring in accounting, business administration, economics, finance, management, business analytics and information systems, and marketing to begin work on the M.S. while completing the Bachelor of Business Administration degree. Students can complete both degrees in less time than it would take them to complete them separately; see the M.S. in business analytics (career) in the Catalog.
B.B.A./M.S. in Finance
The combined B.B.A./M.S. program in finance allows undergraduate students majoring in business administration to begin work toward the M.S. while completing the Bachelor of Business Administration degree. The program provides students with the opportunity to complete both degrees in five years instead of six. Offered by the Graduate College and the Tippie College of Business; see the M.S. in finance in the Catalog.

B.S.E. in Biomedical Engineering/M.S. in Biomedical Engineering
The combined B.S.E./M.S. program in biomedical engineering enables undergraduate students majoring in biomedical engineering to begin work toward the M.S. while completing the bachelor's degree. Students admitted to the program may count a limited amount of credit toward both the B.S.E. and M.S. degree requirements. They also may attend and participate in the departmental graduate seminar and work on a master's thesis or research project before they have been awarded the B.S.E. degree. Offered by the Graduate College and the College of Engineering; see the Roy J. Carver Department of Biomedical Engineering in the Catalog.

B.S.E. in Biomedical Engineering/M.S. in Occupational and Environmental Health (Industrial Hygiene Subprogram)
The combined B.S.E. in biomedical engineering/M.S. in occupational and environmental health with an industrial hygiene subprogram enables undergraduate students majoring in biomedical engineering to begin work toward the M.S. in occupational and environmental health while completing the bachelor's degree. Students admitted to the program may count a limited amount of credit toward both the B.S.E. and M.S. degree requirements. Offered by the Graduate College, the College of Engineering, and the College of Public Health; see the B.S.E. in biomedical engineering and the M.S. in occupational and environmental health (industrial hygiene subprogram) in the Catalog.

B.S.E. in Chemical Engineering/M.S. in Chemical and Biochemical Engineering
The combined B.S.E. in chemical engineering/M.S. in chemical and biochemical engineering enables undergraduate students majoring in chemical engineering to begin work toward the M.S. while completing the bachelor’s degree. Students admitted to the program may count 12 s.h. of coursework, typically advanced chemistry sequences and electives, toward both the B.S.E. and M.S. degree requirements. Offered by the Graduate College and the College of Engineering; see Chemical and Biochemical Engineering in the Catalog.

B.S.E. in Chemical Engineering/M.S. in Civil and Environmental Engineering
The combined B.S.E. in chemical engineering/M.S. in civil and environmental engineering enables undergraduate students majoring in chemical engineering to begin work toward the M.S. in civil and environmental engineering while completing the bachelor's degree. Students admitted to the program may count 12 s.h. of coursework toward both the B.S.E. and M.S. degree requirements. Offered by the Graduate College and the College of Engineering; see the B.S.E. in chemical and biochemical engineering and the M.S. in civil and environmental engineering in the Catalog.

B.S.E. in Civil Engineering/M.S. in Civil and Environmental Engineering
The combined B.S.E. in civil engineering/M.S. in civil and environmental engineering enables undergraduate students majoring in civil engineering to begin work toward the M.S. while completing the bachelor's degree. Students admitted to the program may count a limited amount of credit toward both the B.S.E. and M.S. degree requirements. They also may attend and participate in the departmental graduate seminar and work on a master's thesis or research project before they have been awarded the B.S.E. degree. Offered by the Graduate College and the College of Engineering; see Civil and Environmental Engineering in the Catalog.

B.S.E. in Civil Engineering/M.S. in Urban and Regional Planning
The combined B.S.E. in civil engineering/M.S. in urban and regional planning enables undergraduate students majoring in civil engineering to begin work toward the M.S. while completing the bachelor’s degree. Students admitted to the program may count 9 s.h. toward both the B.S.E. and M.S. degree requirements. They also may count an additional 3 s.h. toward the M.S. degree requirements and engage in thesis-level research before they have been awarded the B.S.E. degree. Offered by the Graduate College and the College of Engineering; see the B.S.E. in civil and environmental engineering and the M.S. in urban and regional planning in the Catalog.

B.S.E. in Electrical Engineering/M.S. in Electrical and Computer Engineering
The combined B.S.E. in electrical engineering/M.S. in electrical and computer engineering enables undergraduate students majoring in electrical engineering to begin work toward the M.S. while completing the bachelor's degree. Students admitted to the program may count 9 s.h. toward both the B.S.E. and M.S. degree requirements. They also may count an additional 3 s.h. toward the M.S. degree requirements and engage in thesis-level research before they have been awarded the B.S.E. degree. Offered by the Graduate College and the College of Engineering; see Electrical and Computer Engineering in the Catalog.

B.S.E. in Industrial Engineering/M.S. in Industrial Engineering
The combined B.S.E./M.S. program in industrial engineering enables undergraduate students majoring in industrial engineering to begin work toward the M.S. while completing the bachelor’s degree. Students admitted to the program may count 6 s.h. toward both the B.S.E. and M.S. degree requirements. They also may count an additional 6 s.h. toward the M.S. degree requirements, attend one of the department's graduate seminars, and work on master's thesis research before they have been awarded the B.S.E. degree. Offered by the Graduate College and the College of Engineering; see Industrial and Systems Engineering in the Catalog.

B.S.E. in Mechanical Engineering/M.S. in Mechanical Engineering
The combined B.S.E./M.S. program in mechanical engineering enables undergraduates majoring in mechanical engineering
to begin work toward the M.S. while completing the bachelor's degree. Students admitted to the program may count 6 s.h. toward both the B.S.E. and M.S. degree requirements. They also may count an additional 6 s.h. toward the M.S. degree requirements, attend a graduate seminar, and participate in master's thesis research before they have been awarded the B.S.E. degree. Offered by the Graduate College and the College of Engineering; see Mechanical Engineering in the Catalog.

**B.S.E. in Mechanical Engineering/M.S. in Civil and Environmental Engineering**

The combined B.S.E. in mechanical engineering/M.S. in civil and environmental engineering enables undergraduate students majoring in mechanical engineering to begin work toward the M.S. in civil and environmental engineering while completing the bachelor's degree. Students admitted to the program may count 9 s.h. of coursework toward both the B.S.E. and M.S. degree requirements. They also may count an additional 3 s.h. toward the M.S. degree requirements before they have been awarded the B.S.E. degree. Offered by the Graduate College and the College of Engineering; see the B.S.E. in mechanical engineering and the M.S. in civil and environmental engineering in the Catalog.

**Au.D./Ph.D. in Speech and Hearing Science**

The combined Au.D./Ph.D. program in speech and hearing science is designed for students who would like to practice audiology and hold a faculty position at a university. Students admitted to the program work concurrently toward the Doctor of Audiology and the Doctor of Philosophy; they may count 30 s.h. toward the requirements of both degrees. Offered by the Graduate College and the College of Liberal Arts and Sciences; see Communication Sciences and Disorders in the Catalog.

**J.D./Graduate Degrees**

The College of Law and several Graduate College programs and schools have developed combined programs in which students pursue the Juris Doctor (J.D.) degree and a graduate degree concurrently. Offered by the Graduate College and the College of Law; see the Manual of Rules and Regulations of the Graduate College on the college's website and Juris Doctor, J.D. in the Catalog.

**M.A. in Library and Information Science/Certificate in Book Studies/Book Arts and Technologies**

The combined M.A. in library and information science and Certificate in Book Studies/Book Arts and Technologies prepares students for careers in special collections librarianship. Students admitted to the program receive training in the management of varied types of special collections, such as rare books, manuscripts, archives, graphics, music, and ephemera. Offered by the Graduate College; see the M.A. in library and information science and the Certificate in Book Studies/Book Arts and Technologies in the Catalog.

**M.A. in Library and Information Science/M.F.A. in Book Arts**

The combined M.A. in library and information science/M.F.A. in book arts allows graduate students with strong interests in the physical book to acquire training in the book arts, book history, and material book studies. The earned expertise in the production and legacy of the book as a physical artifact combined with expertise in library and information science can be an asset for those focused on careers in special collections libraries and archives. Students in the combined program earn both degrees by completing fewer semester hours than if each degree was completed separately. Offered by the Graduate College; see the M.A. in library and information science and the M.F.A. in book arts in the Catalog.

**M.D./Ph.D. (Medical Scientist Training Program)**

The combined Doctor of Medicine/Doctor of Philosophy program prepares students for careers in academic medicine, with emphasis on basic and clinical research. Offered by the Graduate College and the Carver College of Medicine; see Medical Scientist Training Program in the Catalog.

**Certificates**

The Graduate College also participates with other University of Iowa colleges in offering the following graduate certificates.

**Adult Gerontology Acute Care Nurse Practitioner**

The Certificate in Adult Gerontology Acute Care Nurse Practitioner is a program for post-master's Advanced Practice Registered Nurse degree students who would like to pursue a second specialty. See the Certificate in Adult Gerontology Acute Care Nurse Practitioner in the Catalog.

**Adult Gerontology Primary Care Nurse Practitioner**

The Certificate in Adult Gerontology Primary Care Nurse Practitioner is a program for post-master's Advanced Practice Registered Nurse degree students who would like to pursue a second specialty. See the Certificate in Adult Gerontology Primary Care Nurse Practitioner in the Catalog.

**African American Studies**

The Certificate in African American Studies is a program that increases intellectual knowledge and understanding of African American culture and experience. See the Certificate in African American Studies in the Catalog.

**Aging and Longevity Studies**

The Aging and Longevity Studies Program is a multidisciplinary certificate program administered by the College of Liberal Arts and Sciences in cooperation with other University of Iowa colleges. The program is designed to complement graduate degree programs or to serve as a stand-alone nondegree program for students with academic, professional, research, or service career interests in aging. See the Certificate in Aging and Longevity Studies in the Catalog.

**Agricultural Safety and Health**

The Certificate in Agricultural Safety and Health is a postbaccalaureate program for practicing health care professionals serving rural areas and for health professions students who intend to practice in rural areas. The program is designed to help rural health professionals address safety
and health issues in farm settings. See the Certificate in Agricultural Safety and Health in the Catalog.

Applied Behavior Analysis

The Certificate in Applied Behavior Analysis develops skills in behavioral intervention and intensive instruction. The course sequence contributes to eligibility for certification as a board-certified behavior analyst (BCBA). See the Certificate in Applied Behavior Analysis.

Biostatistics

The Certificate in Biostatistics is open to students in University of Iowa graduate degree programs outside biostatistics and to individuals admitted to the Graduate College as nondegree students. The certificate program enables students to add a formal biostatistics emphasis to their degree programs. Students who complete the certificate in conjunction with a graduate degree may count a maximum of 6 s.h. of certificate credit toward their graduate degree. See the Certificate in Biostatistics in the Catalog.

Book Studies/Book Arts and Technologies

The Certificate in Book Studies/Book Arts and Technologies is designed to be completed in one year. The program is open to students who are enrolled in a graduate degree program at the University of Iowa as well as to students enrolled in the Graduate College with nondegree status. See the Certificate in Book Studies/Book Arts and Technologies in the Catalog.

Business Analytics

The Certificate in Business Analytics is open to students in University of Iowa graduate degree programs and to individuals admitted to the Graduate College as nondegree students. The certificate program is designed for working professionals and addresses a growing need to manage and analyze the rapidly increasing amount of data that is available to support business decision making. See the Certificate in Business Analytics in the Catalog.

Cognitive Science of Language

The Certificate in Cognitive Science of Language is designed to complement doctoral study. The certificate program is open to University of Iowa Ph.D. students in linguistics, neuroscience, psychology, and speech and hearing science. Ph.D. students in other disciplines may petition to be permitted to earn the certificate. Students must complete a formal application to enter the certificate program; they should contact the program's coordinator before they apply. See the Certificate in Cognitive Science of Language in the Catalog.

College Teaching

The Certificate in College Teaching complements discipline-oriented graduate programs and prepares students for careers in postsecondary education. The program is open to graduate students working toward a Ph.D. or other terminal graduate degree. See the Certificate in College Teaching in the Catalog.

Emerging Infectious Disease Epidemiology

The Certificate in Emerging Infectious Disease Epidemiology is a postbaccalaureate program designed to meet the training needs in emerging infectious disease of international public health professionals as well as University of Iowa graduate students. Applicants to the program must hold a bachelor's degree. See the Certificate in Emerging Infectious Disease Epidemiology in the Catalog.

Family Nurse Practitioner

The Certificate in Family Nurse Practitioner is a program for post-master's Advanced Practice Registered Nurse degree students who would like to pursue a second specialty. See the Certificate in Family Nurse Practitioner in the Catalog.

Gender, Women's, and Sexuality Studies

The Certificate in Gender, Women's, and Sexuality Studies is open to students enrolled in graduate degree programs. See the Certificate in Gender, Women's, and Sexuality Studies in the Catalog.

Global Health Studies

The Certificate in Global Health Studies is open to graduate and professional students, except for those in the College of Pharmacy who have earned the Pharm.D. degree—they are awarded the undergraduate certificate. Students must maintain a g.p.a. of at least 3.00 in work for certificate. See the Certificate in Global Health Studies in the Catalog.

Health Systems

The Certificate in Health Systems is built on the foundational courses from the Doctor of Nursing Practice (D.N.P.) with a health systems subprogram. The certificate is available to post-master's degree students seeking additional preparation in the area of health systems/administration. See the Certificate in Health Systems in the Catalog.

Healthcare Management

The Certificate in Healthcare Management provides foundational business and leadership skills to physicians, nurses, and other clinicians, and managers. See the Certificate in Healthcare Management in the Catalog.

Informatics

The Certificate in Informatics requires a variable amount of graduate credit, depending on the student's choice of subprogram. The certificate program is designed for students enrolled in University of Iowa graduate degree programs who wish to study informatics as a complement to their degree program and for nondegree students who are interested in increasing their knowledge of informatics. See the Certificate in Informatics in the Catalog.

Literary Translation

The Certificate in Literary Translation includes coursework in translation practice and techniques. Translation workshops and coursework in translation theory also are central to the certificate program as they are essential to the training of literary translators. See the Certificate in Literary Translation in the Catalog.

Native American and Indigenous Studies

The Native American and Indigenous Studies Program offers an interdisciplinary certificate program focusing on the
Online Teaching
The Certificate in Online Teaching is designed to prepare students for the realities of online teaching and to help them expand their career options. The certificate is open to students in University of Iowa graduate degree programs and to individuals admitted to the Graduate College as nondegree students. See the Certificate in Online Teaching in the Catalog.

Pediatric Nurse Practitioner—Acute Care
The Certificate in Pediatric Nurse Practitioner—Acute Care is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty. See the Certificate in Pediatric Nurse Practitioner—Acute Care in the Catalog.

Pediatric Nurse Practitioner—Primary Care
The Certificate in Pediatric Nurse Practitioner—Primary Care is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty. See the Certificate in Pediatric Nurse Practitioner—Primary Care in the Catalog.

Public Health
The Certificate in Public Health is designed to improve public health practice and public health workforce capacity in Iowa and the upper Midwest. It is intended primarily for individuals in public health practice, those in the workforce, and those interested in strengthening their knowledge and skills in basic public health competencies. See the Certificate in Public Health in the Catalog.

Psychiatric/Mental Health Nurse Practitioner
The Certificate in Psychiatric/Mental Health Nurse Practitioner is available for post-master's Advanced Practice Registered Nurse (APRN) degree students who would like to pursue a second specialty. See the Certificate in Psychiatric/Mental Health Nurse Practitioner in the Catalog.

Public Digital Humanities
The Certificate in Public Digital Humanities is open to all University of Iowa graduate students in good academic standing. Students take a theory and practice course, and select elective coursework to suit their disciplinary or technical needs. See the Certificate in Public Digital Humanities in the Catalog.

Sacred Music
The Certificate in Sacred Music is an interdisciplinary program with courses in sacred music, choral conducting and literature, keyboard, voice, religion, and art and art history. The program is open to students enrolled in a graduate degree program and to nondegree students who have been admitted to the Graduate College and who have consent of the certificate's faculty advisor. See the Certificate in Sacred Music in the Catalog.

Special Collections Librarianship
The Certificate in Special Collections Librarianship includes coursework that introduces students to the core theories supporting the collection and management of rare books, archival records, and manuscript collections. See the Certificate in Special Collections Librarianship in the Catalog.

Sustainable Water Development
The Certificate in Sustainable Water Development trains science, technology, engineering, and mathematics (STEM) graduate students to address future challenges of water scarcity and variability while also meeting the food and energy demands of Earth’s growing population. See the Certificate in Sustainable Water Development in the Catalog.

Translational and Clinical Investigation
The Certificate in Translational and Clinical Investigation is designed for clinicians who seek advanced training in clinical methodology and applied patient-oriented research skills. Students in the certificate program must be practicing academic clinicians who have completed doctoral training. See the Certificate in Translational and Clinical Investigation in the Catalog.

Transportation Studies
The Certificate in Transportation Studies includes a choice of coursework in traffic engineering, transportation and land use planning, design of transportation systems, transportation demand analysis, transportation policy and planning, as well as other transportation areas. Students may earn the certificate in conjunction with an M.S. or Ph.D. in civil and environmental engineering or with an M.S. in urban and regional planning.

Individuals working toward degrees in other transportation-related disciplines are encouraged to apply to the Transportation Studies Program. Depending on a student’s background, additional coursework in statistics, computer programming, simulation, mathematics, and operations research may be required for the certificate. Credit earned in these courses may not be applicable to the student’s degree program. See the Certificate in Transportation Studies in the Catalog.

Financial Support
Approximately half of the University’s graduate students receive some form of University-administered financial assistance. For eligibility requirements and application procedures, see “Section VII. Graduate Appointments” in the Manual of Rules and Regulations of the Graduate College on the college’s website. The following are the primary sources of assistance. For a more complete description of funding available to graduate students, see the Graduate College website.
Teaching and Research Assistantships

Teaching and research assistantships are available in most departments. Assistantship stipends are awarded for half-time academic-year appointments and half-time fiscal-year appointments; assistants also are eligible for tuition scholarships. Assistants (one-quarter-time or more) pay resident tuition rates for fee purposes.

Iowa Arts Fellowships

Iowa Arts Fellowships are for University of Iowa graduate students entering M.F.A. programs. Typical stipends are for the academic year, with all tuition and a percentage of mandatory fees paid, plus a health insurance allowance, for one year (the remaining years of support must be provided by the appointing program). There are no departmental service obligations while holding the first-year fellowship.

Iowa Performance Fellowships

Iowa Performance Fellowships are for first-year D.M.A. candidates in a performance area of music. Recipients are nominated by the School of Music. Awards include academic-year fellowships, summer fellowships, and tuition and a percentage of mandatory fees paid (fellow is responsible for the remainder of fees). The School of Music provides a one-quarter-time research assistantship in years two and three.

Graduate College Iowa Recruitment Fellowships

Iowa Recruitment Fellowships program enhances departmental recruitment packages by offering the most accomplished new doctoral students a stipend supplement for up to five years and fellowship support for up to four summer terms. Tuition scholarships are to be paid during the academic years (fall, spring) by the appointing unit, while the Graduate College provides up to 2 s.h. of tuition and benefits for the summer terms. Recipients are nominated by their department.

Graduate College Summer Fellowships

Graduate College Summer Fellowships are for advanced doctoral students who have completed their comprehensive exams, are working to complete their dissertations, and do not otherwise have funding for the summer session. Awards provide a summer stipend and provide up to 2 s.h. of tuition. Awardees must enroll for the six-week, eight-week, or twelve-week summer session. Students enrolled in the four-week summer session are not eligible to receive the fellowship.

T. Anne Cleary International Research Fellowships

The T. Anne Cleary International Research Fellowships are for doctoral students who have completed all predissertation requirements, including the comprehensive examination, and who will use the fellowship for dissertation research outside North America. The awards may vary and are meant to supplement other research funds. Doctoral students in any discipline may apply. Past recipients of the Cleary fellowship and Doctor of Musical Arts students who choose the D.M.A. essay option are not eligible.

Ballard and Seashore Dissertation-Year Fellowships

Ballard and Seashore Dissertation Fellowships are one semester fellowships for doctoral candidates who have completed all doctoral degree requirements except their dissertation. Recipients are nominated by their departments. Fellowships provide monetary amounts for the semester plus tuition and a percentage of mandatory fees paid for up to 2 s.h. and a health insurance allowance.

Post-Comprehensive Research Awards

The Post-Comprehensive Research Awards program provides an opportunity for advanced doctoral students to benefit from protected and supported time to pursue their scholarly research activities. The award is intended to recognize students with distinguished academic achievement during their early graduate training. These achievements should be evident from a combination of outstanding academic performance in coursework, as well as early scholarly research activities. Students who have held teaching assistantships in the previous two semesters will have priority. Awardees will receive a stipend. The Graduate College also supports up to 2 s.h. of tuition, a percentage of the mandatory fees, and a health insurance allowance. Recipients are nominated by their department.

Scholarships

Scholarships provide up to full tuition.

Graduate Student Travel Awards

Graduate student travel awards provide reimbursement for travel by students who present research and scholarship results to professional conferences. Awards are competitive across disciplines and vary. Funds are administered by the Graduate Student Senate and the Graduate College.

Other Sources

For other sources of financial support, contact the Office of Student Financial Aid.

Many departments offer additional support through traineeships, part-time employment in research, or part-time teaching appointments. The Office of the Vice President for Research maintains a library of information on public and private agencies that provide funds for research and graduate study. Much material has been collected concerning awards for overseas study.

Courses

Most Graduate College courses are offered by the college's programs and schools. They are listed and described in the corresponding Catalog sections.

The college also offers the following nondepartmental courses.

Graduate College Courses

GRAD:0006 SROP Scholars Program 0 s.h.
GRAD:5225 Communicating Data Through Stories 3 s.h.
How to communicate science effectively and responsively with multiple audiences from peers and professors to potential employers, policymakers, and the lay public; focus on speaking about science clearly and vividly in ways that can engage varied audiences, especially those outside the student’s own field; connecting and finding common ground with an audience, defining goals, identifying main points, speaking without jargon, explaining meaning and context, using storytelling techniques and multimedia elements. Same as CEE:5225.

GRAD:5800 Writing for National Fellowships arr.
Process of writing applications for nationally competitive fellowship opportunities; completion of a fellowship application portfolio for a specific fellowship opportunity.

GRAD:6000 Ph.D. Postcomprehensive Registration 1 s.h.
GRAD:6001 Master's Final Registration 1 s.h.
Requirements: master's degree candidate.
GRAD:6002 Doctoral Continuous Registration 1 s.h.
Requirements: doctoral degree candidate who has passed comprehensive examinations.

GRAD:6003 Doctoral Final Registration 1 s.h.
Requirements: doctoral degree candidate in final session of enrollment.

GRAD:6217 Seminar in College Teaching 1-3 s.h.
Preparation for college teaching; for graduate students planning to teach. Same as PSQF:6217.

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

GRAD:6313 Studio Summer Fellowship 1 s.h.
Investigation of and reflection on digital scholarly collaboration, production, and promotion. Same as ULIB:6313.

GRAD:6500 Digital Humanities Independent Study arr.
Independent study for students working toward their public digital humanities certificate.

GRAD:6510 Introduction to Programming 1 s.h.
Introduction to computer programming; how computer programming has quickly become a valuable skill across a diverse range of professions and academic disciplines from analyzing text, visualizing data, creating maps, or developing web applications, programming impacts an increasingly large segment of professional activity; knowing how to read and write code is a valuable literacy in modern mediated life; whether the need is to automate repetitive tasks, perform calculations on data, or accept and process user input; students write simple programs of their own design.

GRAD:6520 Data Visualization Basics 1 s.h.
Hands-on introduction to basics of data visualization—working with data, analyzing and designing clear and functional visualizations, and developing simple data visualizations in Excel and Python or R; basic static plots (e.g., scatterplots, histograms, line graphs); brief introduction to geographic maps and network graphs.

GRAD:6521 Scholarly Communication and Journal Publishing 1 s.h.
Process of publishing a scholarly journal; several scholarly journals are published locally through Iowa Research Online (IRO); for graduate students interested in academic journal publishing as well as scholarly communication more broadly.

GRAD:6530 Map Making for Beginners 1 s.h.
Maps are high-impact visual representations that can make complex ideas more comprehensible and enhance the persuasive power of academic arguments; however, proprietary GIS software is expensive and inaccessible to most users; introduction to spatial analysis of data and map making with QGIS—a free, open source, and comprehensive desktop GIS application.

GRAD:6590 Digital Humanities Capstone arr.
Application and practice of classroom experience to a specific project under guidance from a faculty member and project team leader. Prerequisites: CLAS:7290 or SLIS:7290. Requirements: admission to public digital humanities certificate program, an approved certificate plan of study on file, completion of 12 s.h. of approved coursework, and good standing in all required certificate coursework. Same as SLIS:6590.

GRAD:6800 CIC Scholar arr.
GRAD:6801 Regents Exchange Program arr.
GRAD:6997 Graduate/Professional Transfer arr.
GRAD:6998 Undergraduate Transfer arr.
GRAD:6999 Resident/Fellow/Post-Doctoral 0 s.h.
GRAD:7185 Obermann Center for Advanced Studies Special Topics Seminars 1-3 s.h.
Active participation and engagement in a major program, such as the annual Humanities Symposium; readings on interdisciplinary histories, contexts, and theoretical perspectives that frame featured events; work of artists, scholars, and researchers participating in the program. Requirements: admission to Graduate College.

GRAD:7285 Obermann Center Professional Development Seminar 1 s.h.
Active participation and engagement in a series of classes dedicated to connecting public engagement, research, and teaching; readings and media viewings that frame course topics; production of a short film, marketing materials, grant, and syllabi relevant to public engagement project. Requirements: admission to Graduate College and completion of Obermann Graduate Institute on Engagement and the Academy.

GRAD:7385 Teaching and Learning in Higher Education 3 s.h.
Current theoretical and empirical literature on teaching and learning in higher education; focus on development of effective teaching practice. Same as EDTL:7385, EPLS:7385, PSQF:7385, RCE:7385.

GRAD:7400 Practicum in College Teaching arr.
Supervised college teaching experience; teaching in collaboration with faculty, observation and critiques of teaching, participation in course planning and evaluation procedures; ethical and multicultural considerations. Requirements: admission to the graduate certificate in college teaching program.

GRAD:7601 Postdoctoral Research Scholar 0 s.h.
Requirements: postdoctoral standing.

GRAD:7621 Studio Summer Fellowship 1 s.h.
Investigation of and reflection on digital scholarly collaboration, production, and promotion. Same as ULIB:6313.

GRAD:7650 Digital Humanities Independent Study arr.
Independent study for students working toward their public digital humanities certificate.

GRAD:7685 Digital Humanities Independent Study 1 s.h.
Independent study for students working toward their public digital humanities certificate.

GRAD:7800 Digital Humanities Independent Study 1 s.h.
Independent study for students working toward their public digital humanities certificate.

GRAD:7999 Resident/Fellow/Post-Doctoral 0 s.h.
GRAD:8185 Obermann Center Professional Development Seminar 1 s.h.
Active participation and engagement in a series of classes dedicated to connecting public engagement, research, and teaching; readings and media viewings that frame course topics; production of a short film, marketing materials, grant, and syllabi relevant to public engagement project. Requirements: admission to Graduate College and completion of Obermann Graduate Institute on Engagement and the Academy.

GRAD:8385 Teaching and Learning in Higher Education 3 s.h.
Current theoretical and empirical literature on teaching and learning in higher education; focus on development of effective teaching practice. Same as EDTL:7385, EPLS:7385, PSQF:7385, RCE:7385.

GRAD:8400 Practicum in College Teaching arr.
Supervised college teaching experience; teaching in collaboration with faculty, observation and critiques of teaching, participation in course planning and evaluation procedures; ethical and multicultural considerations. Requirements: admission to the graduate certificate in college teaching program.

GRAD:8601 Master's Final Registration 1 s.h.
Requirements: master's degree candidate.

GRAD:8602 Doctoral Continuous Registration 1 s.h.
Requirements: doctoral degree candidate who has passed comprehensive examinations.

GRAD:8603 Doctoral Final Registration 1 s.h.
Requirements: doctoral degree candidate in final session of enrollment.

GRAD:8621 Seminar in College Teaching 1-3 s.h.
Preparation for college teaching; for graduate students planning to teach. Same as PSQF:6217.

GRAD:8630 Writing for Learned Journals 1-4 s.h.
Seminar that supports graduate students in bringing written work to publishable form; analysis of target journals’ audiences, interests, and citation politics; submission and the publication process; response to reader reports and criticism; best writing and research practices; discussion of knowledge cultures and discourses in disciplines and the contemporary academy. Same as AMST:6300, GWSS:6300, RHET:6330.

GRAD:8631 Studio Summer Fellowship 1 s.h.
Investigation of and reflection on digital scholarly collaboration, production, and promotion. Same as ULIB:6313.

GRAD:8650 Digital Humanities Independent Study arr.
Independent study for students working toward their public digital humanities certificate.

GRAD:8651 Introduction to Programming 1 s.h.
Introduction to computer programming; how computer programming has quickly become a valuable skill across a diverse range of professions and academic disciplines from analyzing text, visualizing data, creating maps, or developing web applications, programming impacts an increasingly large segment of professional activity; knowing how to read and write code is a valuable literacy in modern mediated life, whether the need is to automate repetitive tasks, perform calculations on data, or accept and process user input; students write simple programs of their own design.

GRAD:8652 Data Visualization Basics 1 s.h.
Hands-on introduction to basics of data visualization—working with data, analyzing and designing clear and functional visualizations, and developing simple data visualizations in Excel and Python or R; basic static plots (e.g., scatterplots, histograms, line graphs); brief introduction to geographic maps and network graphs.
GRAD:7602 Postdoctoral Research Fellow  0 s.h.
Requirements: postdoctoral standing.