

# COLLEGES AND CURRICULA

## Undergraduate and Professional Degree Programs

The university is organized into eight colleges, including the Graduate College. Six colleges offer undergraduate degree programs, and the College of Veterinary Medicine offers the Doctor of Veterinary Medicine degree. For a listing of the more than 100 majors offered by the Graduate College, see the summary at the end of the Graduate College section of this publication.

Iowa State University is accredited by the Higher Learning Commission.

### Bachelor's Degree Requirements

To receive a degree, a student must meet the requirements of the curriculum in which the degree is to be awarded. Verification that the student has met those requirements is made by the dean of the college, who also has the authority to waive a requirement under exceptional circumstances.

A minimum of 120-semester credits and a cumulative grade point average of at least 2.00 in all work taken at Iowa State University is required for graduation.

A student admitted as a transfer student from another college or university is required to have a 2.25 cumulative grade point average at the time of entrance. A transfer student who has earned an associate's degree is required to have a 2.00 cumulative grade point average at the time of entrance. A student may, however, be admitted with a quality-point deficiency, and will be required to earn sufficient quality-points above a 2.00 at Iowa State to offset the quality-point deficiency at the time of entrance.

No more than 65 semester or 97 quarter credits earned at two-year colleges can be applied to a bachelor's degree from Iowa State University. There is no limit to the number of credits that may be transferred from a four-year institution.

A student who takes work at another college or university after having been enrolled at Iowa State must submit transcripts of all work attempted to the Office of Admissions at Iowa State. This work must average a 2.00 or the deficiency of quality points will be assessed against the student. Failure to submit such transcripts will be grounds for dismissal.

In unusual circumstances, the Academic Standards Committees of the respective colleges may review and give further consideration to the records of students who, except for grade-point average, have satisfactorily completed all graduation requirements. If the appropriate college Academic Standards Committee considers that the educational and professional needs of such a student have been satisfactorily

met, or can be satisfactorily met by imposing further conditions, the committee may recommend to the dean of the college that the student be graduated or that a supplemental program be accepted in place of the fully unqualified grade point average. The college Academic Standards Committee chairperson reports such exceptional actions to the Faculty Senate Committee on Academic Standards and Admissions.

To qualify for a bachelor's degree, a student must take a minimum of 32 credits in residence at Iowa State University. Also required is that the last 32 credits must be taken in residence, although under special circumstances, with prior written approval of the student's major department, six of the last 32 credits may be transferred and applied toward a degree at Iowa State University.

A student may receive two bachelor's degrees if the student meets the requirements of each curriculum and earns at least 30 credits beyond the requirements of the curriculum requiring the greater number of credits. Each degree program must be approved by the appropriate department chair or head.

A student fulfilling the requirements of two separate curricula in different colleges may, in certain cases, receive a degree from one of the colleges with double majors crossing college lines. The permission of both deans must be obtained and each degree program must be approved by the appropriate department and dean.

### Undergraduate Certificates

All undergraduate certificates require at least 20 credits, including at least 12 credits taken at Iowa State University. At least 9 of the credits taken at Iowa State University must be in courses numbered 300 or above. The undergraduate certificate must include at least 9 credits that are not used to meet any other department, college, or university requirement except to satisfy the total credit requirement for graduation and to meet credit requirements in courses numbered 300 or above. Courses taken for an undergraduate certificate may not be taken on a pass-not pass basis. A cumulative grade point average of at least 2.00 is required in courses taken at Iowa State University for an undergraduate certificate. Specific requirements and/or restrictions are available from the department or program offering the undergraduate certificate (see Index or individual colleges for information).

### Communication Proficiency Policy

**Basic Principles:** The faculty of Iowa State University believe that all educated people should be able to communicate effectively in a variety of settings and media, including electronic. Consequently, Iowa State University graduates are expected to develop competence in three interrelated areas of communication: written, oral, and visual.

This communication competence can best be achieved through the following five principles:

- Communication instruction and practice are distributed over the student's entire undergraduate experience, both in and out of the classroom, from the first year through the senior year.
- Communication instruction and practice are distributed across the curriculum, both in communication courses and in courses in the student's major.
- Active learning and higher-order thinking are fostered through communication.
- Faculty across the university share responsibility for the student's progress in communication practices.
- Both faculty and students engage in ongoing assessment for continuous improvement of the student's communication practices.

Iowa State University's communication curriculum, based on these five principles, seeks to enrich the student's understanding of the various subjects studied as well as prepare the student to communicate successfully in professional, civic, and private life.

### Foundation Courses

To ensure that broad communication competence is addressed and developed at the beginning of a university career, all students will earn six credits in the two-course introductory sequence (ENGL 150 Critical Thinking and Communication and ENGL 250 Written, Oral, Visual, and Electronic Composition), normally taken in the first and second years. Students will focus on writing and critical reading, with complementary instruction in visual, oral, and electronic communication; they will concentrate on civic and cultural themes; and they will enter work in a communication portfolio to document their current level of proficiency.

Communication Proficiency Grade Requirement: At a minimum, students must demonstrate their communication proficiency by earning a grade of C or better in ENGL 250; some majors/degree programs may set higher requirements for communication proficiency.

### Upper-Level Curricula

Continuing development of communication skills will be directed by the student's major department. Using the university's basic principles as a guide, each department will specify a set of intended learning outcomes and design communication experiences by which students in the major can achieve the desired level of communication proficiency.

Departments may select from or combine a variety of communication options that best match their faculty, students, and curriculum:

- designated communication-intensive courses that integrate written, oral, and visual communication into a course in the major;
- a sequence of courses within the major that incorporates communication tasks of increasing complexity;
- linked courses—one in communication, one in the major—that integrate readings and assignments;

- advanced composition course(s) appropriate to the student's major and offering instruction in written, oral, and visual communication;
- communication-intensive activities within or beyond course work, such as communication portfolios, discipline- or course- specific student tutoring, community service projects, internships, electronic presentations, informational fairs, juried competitions, entrepreneurial projects, newsletters, Web sites.

Departments will retain the authority for regularly assessing the degree to which their students achieve the specified learning outcomes and for making curricular improvements based on departmental assessment data.

Non-Native Speakers of English: Students admitted to the university who are graduates from non-U.S. high schools and whose first language is not English are required to take the English Placement Test before the beginning of their first semester of enrollment as students at Iowa State. This requirement includes freshmen as well as those who have transferred credit from other institutions. The test is administered by the English Department and is offered before the beginning of each semester. Students whose performance on this placement examination is satisfactory will follow the regular university communication proficiency requirements. Students who have deficiencies will enroll in special English classes, as determined by the test results.

### Library Study

Independent study and investigation through the use of books, journals, and libraries enable students to grow intellectually and professionally in college and afterward. For this reason, all students receive instruction in the use of the University Library, including practice in how to locate the published literature of their respective fields of study.

For undergraduate students, LIB 160 Information Literacy is a one-credit graduation requirement course that provides a foundation of information literacy and library research skills and concepts. Librarians also work each semester with ISU course instructors to teach course-related instruction sessions for undergraduate students in the effective use of library resources in course-relevant fields of study.

Each semester librarians work with ISU course instructors to teach course-related instruction sessions for graduate students in library research skills, information literacy concepts, and the effective use of library resources and research tools in course-relevant fields of study. For more information, call the Library at 515 294-4527.

### U.S. Diversity and International Perspective Requirements

One of Iowa State University's goals is to prepare its students to meet the challenges of responsible citizenship and effective professional roles in a culturally diverse global community. To help achieve this goal, all undergraduate students must fulfill graduation requirements

in two areas: U.S. Diversity and International Perspectives. The specific standards used to certify students' fulfillment of these requirements vary from major to major, but all require three credits of course work (or the equivalent in some alternative academic experience) for each of the requirements. In most cases, courses used to meet the U.S. Diversity and International Perspectives requirements can also be used to fulfill general education requirements of the student's college or requirements of the student's major. Students should consult with advisors for details of the requirements in particular majors.

The focus of the U.S. Diversity requirement is the multicultural society of the United States. Courses or alternative academic work used to meet the requirement address significant manifestations of human diversity and provide students with insights that enhance their understanding of diversity among people in the U.S.

Through completion of the U.S. Diversity requirement, students will achieve at least two learning outcomes such as those listed below.

Students will be able to:

- articulate how their personal life experiences and choices fit within the context of the larger mosaic of U.S. society, indicating how they have confronted and critically analyzed their perceptions and assumptions about diversity-related issues.
- analyze and evaluate the contributions of various underrepresented social groups in shaping the history and culture of the U.S.
- analyze individual and institutional forms of discrimination based on factors such as race, ethnicity, gender, religion, sexual orientation, class, etc.
- analyze the perspectives of groups and individuals affected by discrimination
- analyze how cultural diversity and cooperation among social groups affect U.S. society.

The focus of the International Perspectives requirement is the global community. Its objective is to promote students' understanding of cultural diversity and interdependence on a global scale. A period of immersion in a foreign culture is often a particularly effective way of meeting these objectives, so Iowa State University encourages the use of study-abroad experiences as a means of fulfilling the International Perspectives requirement. International students, because they are "studying abroad" from their home country's perspective, are normally deemed to have met the International Perspectives requirement. The International Perspective requirement shall be waived for U.S. military veterans who have completed at least three months of service stationed outside of the United States.

Through completion of the International Perspectives requirement, students will achieve at least two learning outcomes such as those listed below.

Students will be able to:

- analyze the accuracy and relevancy of their own worldviews and anticipate how people from other nations may perceive that worldview.
- describe and analyze how cultures and societies around the world are formed, are sustained, and evolve.
- analyze and evaluate the influence of global issues in their own lives.
- describe the values and perspectives of cultures other than their own and discuss how they influence individuals' perceptions of global issues and/or events.
- communicate competently in a second language.

## Curriculum Requirements

The curriculum requirements, both in number of credit hours and specific courses, are guidelines for the student and the student's advisor in planning an academic program. The curriculum is subject to change and because of these changes, adjustments may need to be made.

## Catalog in Effect

A student may choose to graduate under the catalog in effect at the time of graduation or a catalog for the previous five years, provided it covers a period of the student's enrollment. Full requirements of the chosen catalog must be met except that adjustments will be made in instances where courses are no longer available or where programs have been changed.

## Special Programs

### Honors Program

The Iowa State University Honors Program is designed for students who have demonstrated the ability and motivation to assume more than the usual responsibility for their undergraduate education. The program enables honors students to gain the maximum benefit from their undergraduate education. Students who graduate in the Honors Program receive the honors designation on their transcripts and diplomas.

Special educational opportunities. Students in the Honors Program determine their educational objectives and devise an individualized program of study to meet them. An honors program may include substitutions for required courses, a combination of courses from several departments to form a new major or minor, Honors courses or seminars, independent study and research, and other forms of innovation. Information about honors courses and seminars for the current academic year can be obtained from the Honors Program Office, 2130 Jischke Honors Building.

Other benefits. Members of the Honors Program have 24-hour access to the Jischke Honors Building as a quiet place to study, use the computers, and visit with other honors students. Students also have off-campus opportunities such as attending honors semesters and conferences. Members receive extended loan privileges at the Library, priority scheduling, and the opportunity to apply for research funds.

ISU students who have a cumulative grade-point average of at least 3.5 become eligible to apply for admission to the Honors Program during their second semester in residence and continue to be eligible as long as they have at least 48 semester credits remaining before graduation. Transfer students with a G.P.A. of 3.5 or higher and more than 60 credits remaining are also eligible to apply.

### **First-Year Honors Program**

Entering first-year students with outstanding high school records and academic ability may be eligible to participate in the First-Year Honors Program (FHP). The FHP, which introduces students to an honors education, consists of honors sections of English 250 and Library 160, an FHP seminar, and honors advisors. Students may also choose to participate in the Honors Mentor Program, which introduces students to scholarship and research. Participants are matched with faculty members conducting research in an areas of mutual interest. Admission to the FHP is limited, and is based on past academic achievement, potential, and interest in an honors education.

Further information concerning the University Honors Program and the First-Year Honors Program can be obtained from the Honors Program Office, 2130 Jischke Honors Building or [www.honors.iastate.edu](http://www.honors.iastate.edu) (<http://www.honors.iastate.edu>).

### **Dual-degree Programs**

Students who complete the first three years in certain curricula at Iowa State and who satisfactorily complete the first year in a recognized medical, dental, veterinary medical, or law curriculum may then be awarded a bachelor's degree from Iowa State. (See Index, Preprofessional Study.)

### **Iowa Lakeside Laboratory**

Iowa Lakeside Laboratory is an off-campus teaching and research facility situated on a 140-acre campus on West Okoboji Lake in Northwest Iowa. It is run cooperatively by Iowa State University, the University of Iowa, the University of Northern Iowa, and Drake University. Each summer Iowa State University students can take up to three undergraduate and/or graduate courses in archaeology, biology, ecology, environmental science, and/or geology for credit at Lakeside (see course listings under Iowa Lakeside Laboratory). All Lakeside courses are small, full-immersion, field-oriented courses that run for 1-4 weeks. Lakeside also offers a variety of short courses for teachers and a series of nontechnical short courses on various aspects of the natural history of Iowa. Information about Lakeside courses as well as registration and housing information can

be obtained from the Biology Program Office, 103 Bessey Hall or on the Lakeside Web site, <https://iowalakesidelab.org/>.

### **Regent Universities Student Exchange Program**

Iowa State University students may take courses at either of the other two Regent universities for Iowa State resident credit. Regular, degree-bound students in good standing at any of the three Regent universities may attend another Regent university for a maximum of two semesters, and the credits earned at the other university will be counted as resident credit at the home institution. Approval for participation and credit in the exchange program must be obtained well in advance of registration since the department head must approve the acceptance of such credits if these are to apply to the major, and to ensure complete processing of the application between the cooperating universities within specified dates for enrollment. Detailed information and application forms for the exchange program are available from the Office of the Registrar.

### **National Student Exchange (NSE)**

Iowa State University is a member of National Student Exchange. The NSE Consortium has 200 colleges and universities throughout North America providing academic and experiential exchange opportunities. Iowa State students with a cumulative GPA of at least 2.50 are eligible to apply. Credits earned as an NSE participant will be recorded on the students Iowa State transcript. Approval for credit in the NSE program should be sought from a student's academic advisor in advance of application. Detailed information and applications forms are available from:

National Student Exchange

1080 Hixson-Lied Student Success Center

(515) 294-6479

[nse@iastate.edu](mailto:nse@iastate.edu)

[www.dso.iastate.edu/nse](http://www.dso.iastate.edu/nse) (<http://www.dso.iastate.edu/nse/>)

### **Study Abroad**

Studying abroad helps prepare students to meet the challenges of an increasingly interdependent global community. It's an adventure that challenges the student academically and provides real opportunities to interact with other cultures, languages, and lifestyles. The skills students gain while studying abroad will make them top candidates for internship placements and full-time positions post-graduation.

As a leading international university, Iowa State has a major commitment to study abroad, and the Study Abroad Center (SAC) is the central administrative office responsible for providing these opportunities. We offer advising on study abroad, international internships, volunteer opportunities, and scholarships.

With over 50 study abroad programs available, from one week to an academic year in length and in nearly every major, students are able to find a program that meets their needs and interests so they can

discover for themselves why study abroad is the most exciting academic adventure.

Exchange Programs offer students the opportunity to study abroad at a partner university while paying Iowa State tuition.

Semester in Australia, Germany, Ireland, Italy, New Zealand, Scotland and Wales offers unlimited placement opportunities for students to study at some of our most popular destinations for the fall, spring, or summer.

Programs led by our faculty offer Iowa State courses around the world. Short-term options can take you from the Antarctica to Uganda and to more than 40 other destinations.

For additional information, contact or stop by the Study Abroad Center. No appointment necessary!

Study Abroad Center  
6563 Memorial Union  
(515 294-6792)

[www.studyabroad.iastate.edu](http://www.studyabroad.iastate.edu) (<http://www.studyabroad.iastate.edu>)

The main undergraduate academic programs of each college are listed below, together with the degrees awarded upon completion. In many cases certain majors, minors, options, or electives allow for increased specialization within the programs. Programs which are administered jointly by two colleges are listed within both colleges.

## College of Agriculture and Life Sciences

- Agricultural and Life Sciences Education, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/agriculturaleducationandstudies/#curriculuminagriculturalandlifescienceseducation>)
- Agricultural Bus (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/economics/#curriculuminagriculturalbusiness>)ness, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/economics/#curriculuminagriculturalbusiness>)
- Agricultural Studies, B.S. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/agricultural\\_studies/](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/agricultural_studies/))
- Agricultural Systems Technology, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/systemstechnology/>)
- Agriculture and Society, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/agricultureandsociety/>)
- Agronomy, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/agronomy/>)
- Animal Ecology, B.S. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/animal\\_ecology/](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/animal_ecology/))
- Animal Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/animalscience/>)
- Biochemistry, B.S. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biochemistry\\_biophysics\\_andmolecularbiology/#curriculuminagriculturalbiochemistry](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biochemistry_biophysics_andmolecularbiology/#curriculuminagriculturalbiochemistry))
- Biology, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/biology/>)
- Culinary Food Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/culinaryscience/>)
- Dairy Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/dairyscience/>)
- Diet and Exercise, B.S./M.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/dietandexercise/>)
- Dietetics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/dietetics/>)
- Environmental Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/environmentalscience/>)
- Environmental Studies, B.S.\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/environmentalstudies/>)
- Food Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/foodscience/>)
- Forestry, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/naturalresourceecologyandmanagement/#curriculuminforestry>)
- Genetics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/genetics/>)
- Global Resource Systems, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/globalresourcesystems/>)

- Horticulture, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/horticulture/>)
- Industrial Technology, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/industrialtechnology/>)
- International Agriculture, B.S.\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/internationalagriculture/>)
- Microbiology, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/microbiology/>)
- Nursing, B.S.N. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/nursing/>)
- Nutritional Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/nutritionalscience/>)
- Seed Science, B.S.\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/undergraduate/seedscience/>)
- biochemistry\_biophysics\_andmolecularbiology/  
#biochemistryorbiophysicmajorsinthecollegeofliberalartsandsciences)
- Chemistry, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/chemistry/>)
- Classical Studies (See Interdisciplinary Studies, below)
- Communication Studies, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/communicationstudies/>)
- Computer Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/computerscience/>)
- Criminal Justice, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/criminaljustice/>)
- Data Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/datascience/>)
- Earth Science, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/earthscience/>)
- Economics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/economics/>)
- English, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/english/>)
- Environmental Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/environmentalscience/>)
- Environmental Studies, B.A., B.S.\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/environmentalstudies/>)
- French (see World Languages and Cultures, below)
- Genetics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/genetics/>)
- Geology, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/geology/>)
- German (see World Languages and Cultures, below)
- History, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/history/>)

\* A secondary major must be taken in conjunction with a primary major.

## College of Liberal Arts and Sciences

- Advertising, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/greenleejourncomm/#theadvertisingmajor>)
- Anthropology, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/anthropology/>)
- Biochemistry, B.S. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biochemistry\\_biophysics\\_andmolecularbiology/#biochemistryorbiophysicmajorsinthecollegeofliberalartsandsciences](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biochemistry_biophysics_andmolecularbiology/#biochemistryorbiophysicmajorsinthecollegeofliberalartsandsciences))
- Bioinformatics and Computational Biology, B.S. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/bioinformaticsandcomputationalbiology\\_undergraduate/](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/bioinformaticsandcomputationalbiology_undergraduate/))
- Biological/Pre-Medical Illustration, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biopremedillustration/>)
- Biology, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/biology/>)
- Biophysics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/>)

- Interdisciplinary Studies, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/undergraduate/interdisciplinarystudies/>)
  - Classical Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/classicalstudies/>)
  - U.S. Latino/a Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/uslatino-a-studies/>)
- International Studies, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/internationalstudies/>)\*
- Journalism and Mass Communication, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/greenleejournalcomm/>)
- Liberal Studies, B.L.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/liberalstudies/>)(a general studies degree)
- Linguistics, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/linguistics/>)
- Mathematics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/mathematics/>)
- Meteorology, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/meteorology/>)
- Music, B.A., B.Mus. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/music/>)
- Performing Arts, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/theatreandperformingarts/#bachelorofarts-performingartsmajorperf>)
- Philosophy, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/philosophy/>)
- Physics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/physicsandastronomy/>)
- Political Science, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/politicalscience/>)
- Psychology, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/psychology/>)
- Public Relations, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/publicrelations/>)
- Religious Studies, B.A. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/religious\\_studies/](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/religious_studies/))
- Sociology, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/sociology/>)
- Software Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/softwareengineering/>)
- Spanish (See World Languages and Cultures, below)
- Speech Communication, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/speechcommunication/>)
- Statistics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/statistics/>)
- Technical Communication, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/technicalcommunication/>)
- Theatre (See Performing Arts, above)
- U.S. Latino/a Studies (See Interdisciplinary Studies, above)
- Women's and Gender Studies, B.A., B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/womensandgenderstudies/>)
- World Languages and Cultures B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldlanguagesandcultures/>):
  - French (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldlanguagesandcultures/#frenchfrnch>)
  - German (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldlanguagesandcultures/#germanger>)
  - Spanish (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldlanguagesandcultures/#spanishspan>)

\*A secondary major must be taken in conjunction with a primary major.

## IVY College of Business

- Accounting, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/accounting/#undergraduatetext>)

- Actuarial Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/actuarialscience/#undergraduatemajortext>)
- Business Administration, B.B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/businessadministration/>)
- Business Analytics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/businessanalytics/#undergraduatemajortext>)
- Business Economics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/businessseconomics/#departmentstext>)
- Entrepreneurship, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/entrepreneurship/#undergraduatemajortext>)
- Finance, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/finance/#undergraduatetext>)
- International Business, B.S.\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/internationalbusiness/#secondaryundergraduatemajortext>)
- Management, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/management/#undergraduatetext>)
- Management Information Systems, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/managementinformationsystems/#undergraduatetext>)
- Marketing, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/marketing/#marketingtext>)
- Supply Chain Management, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/supplychainmanagement/#undergraduatetext>)
- Graphic Design, B.F.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/graphicdesign/>)
- Industrial Design, B.I.D. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/industrialdesign/>)
- Integrated Studio Arts, B.F.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/integratedstudioarts/>)
- Interdisciplinary Design, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/design/>)
- Interior Design, B.F.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/interiordesign/>)
- Landscape Architecture, B.L.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/landscapearchitecture/>)

\*\* The College of Design participates in this interdepartmental major.

## College of Engineering

- Aerospace Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/aerospaceengineering/>)
- Agricultural Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/agriculturalengineering/>)
- Biological Systems Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/biologicalsystemsengineering/>)
- Chemical Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/chemicalengineering/>)
- Civil Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/civilengineering/>)
- Computer Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/computerengineering/>)
- Construction Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/constructionengineering/>)
- Cyber Security Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/cybersecurityengineering/>)
- Electrical Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/electricalengineering/>)
- Environmental Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/environmentalengineering/>)

\*A secondary major must be taken in conjunction with a primary major.

## College of Design

- Architecture, B.Arch. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/architecture/>)
- Art and Design, B.A. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/artanddesign/>)
- Biological / Pre-Medical Illustration (BPM I) B.A.\*\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biopremedillustration/>)
- Community and Regional Planning, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/communityandregionalplanning/>)

- Industrial Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/industrialengineering/>)
- Materials Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/materialsengineering/>)
- Mechanical Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/mechanicalengineering/>)
- Software Engineering, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/softwareengineering/>)

## College of Human Sciences

- Apparel Merchandising, and Design, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/appareleventhosmgmt/>)
- Athletic Training (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/athletictraining/>)
- Culinary Food Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/culinaryscience/>)
- Diet and Exercise, B.S./M.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/dietandexercise/>)
- Dietetics, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/dietetics/>)
- Early Childhood Education, B.S. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/earlychildhood\\_education/](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/earlychildhood_education/))
- Early Childcare Education and Programming, B.S. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/early\\_childcare\\_educationandprogramming/](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/early_childcare_educationandprogramming/))
- Education Secondary\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/educationsecondary/>)
- Elementary Education, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/schoolofeducation/#undergraduatetext>)
- Event Management, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/eventmanagement/>)
- Family and Consumer Sciences Education and Studies, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/familyandconsumerscienceseducationandstudies/>)

- Financial Counseling and Planning, B.S. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/financial\\_counseling\\_planning/](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/financial_counseling_planning/))
- Food Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/foodscience/>)
- Hospitality Management, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/hospitalitymanagement/>)
- Human Development and Family Studies, B.S. ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/childadult\\_familyservices/](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/childadult_familyservices/))
- Kinesiology and Health, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/kinesiology/#curriculuminkinesiologyandhealth>)
- Nursing, B.S.N. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/nursing/>)
- Nutritional Science, B.S. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/nutritionalscience/>)

\* A secondary major must be taken in conjunction with a primary major.

## College of Veterinary Medicine

- Veterinary Medicine, D.V.M. (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofveterinarymedicine/#curriculuminveterinarymedicine>)

## Minors

1. All minors require at least 15 credits, including at least 6 credits taken at Iowa State University in courses numbered 300 or above.
2. The minor must include at least 9 credits that are not used to meet any other department, college, or university requirement.
3. Credits used to meet the minor requirements may also be used to satisfy the credit requirement for graduation and to meet credit requirements in courses numbered 300 or above.
4. Some students may have to exceed the graduation credit requirement set by their college in order to meet the requirements of both the minor and the curriculum/major.
5. Courses taken for a minor may not be taken on a pass-not pass basis.

Requirements for an undergraduate minor are specified by many departments and programs in the university; a record of completion of such requirements appears on a student's transcript. Lists of undergraduate minors offered by each college appear in the college

description. Specific requirements and/or restrictions are available from the department or program offering the minor.

## Minors by College

This list may not be inclusive. Check the college web sites for more information.

### Agriculture and Life Sciences

- Agricultural Business (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/agriculturalbusiness/#minortext>)
- Agricultural Systems Technology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/systemstechnology/#undergraduateminortext>)
- Agricultural and Life Sciences Education (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/agriculturaleducationandstudies/#undergraduateminortext>)
- Agronomy (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/agronomy/#undergraduateminortext>)
- Animal Ecology ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/animal\\_ecology/#undergraduateminortext](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/animal_ecology/#undergraduateminortext))
- Animal Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/animalscience/#undergraduateminortext>)
- Biochemistry ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biochemistry\\_biophysics\\_andmolecularbiology/#minortext](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biochemistry_biophysics_andmolecularbiology/#minortext))
- Biology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biology/#minor>)
- Entrepreneurship\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/entrepreneurship/>)
- Environmental Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/environmentalstudies/#minortext>)
- Feed Technology\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/feedtechnology/#curriculumtext>)
- Food and Society (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Food Safety\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Food Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Forestry (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/forestry/#undergraduateminortext>)
- Genetics (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/genetics/#undergraduateminortext>)
- Global Health\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/entomology/>)
- Horticulture (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/horticulture/#undergraduateminortext>)
- Industrial Technology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/industrialtechnology/#minortext>)
- Insect Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/entomology/#minor-insectscience>)
- International Agriculture (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/internationalagriculture/#minortext>)
- Landscape Management (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/horticulture/#undergraduateminortext>)
- Learning and Leadership Sciences\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/learningandleadershipsciences/>)
- Meat Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/animalscience/#undergraduateminortext>)
- Microbiology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/microbiology/#undergraduateminortext>)
- Nutrition (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Sustainability\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/sustainability/#curriculumtext>)

\*The College of Agriculture and Life Sciences participates in these interdepartmental minors.

## Liberal Arts and Sciences:

- Advertising (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/advertising/#undergraduateminortext>)
- African American Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/africanandafricanamericanstudies/#minortext>)
- American Indian Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/americanindianstudies/>)
- Anthropology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/anthropology/#curriculumtext>)
- Astronomy (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/physicsandastronomy/#undergraduatestudy>)
- Biochemistry ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biochemistry\\_biophysics\\_andmolecularbiology/#minortext](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biochemistry_biophysics_andmolecularbiology/#minortext))
- Bioinformatics and Computational Biology ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/bioinformaticsandcomputationalbiology\\_undergraduate/#minortext](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/bioinformaticsandcomputationalbiology_undergraduate/#minortext))
- Biological Illustration (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biopremedillustration/#minortext>)
- Biology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/biology/#minor>)
- Chemistry (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/chemistry/#undergraduateminortext>)
- Chinese Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldlanguagesandcultures/#chinesestudiesminoroption1chinesestudies>)
- Classical Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/classicalstudies/#undergraduateminortext>)
- Communication Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/communicationstudies/#minortext>)
- Computer Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/computerscience/#undergraduateminortext>)
- Criminal Justice (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/criminaljustice/#minortext>)
- Data Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/datascience/#minorundergraduatestext>)
- Economics (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/economics/#undergraduateminortext>)
- English (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/english/#undergraduateminortext>)
- Entrepreneurship\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/entrepreneurship/>)
- Environmental Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/environmentalstudies/#minortext>)
- Ethics (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/philosophy/#ethicsminortext>)
- French (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldlanguagesandcultures/#frenchfrnch>)
- Genetics (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/genetics/#undergraduateminortext>)
- Geology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/geology/#undergraduateminortext>)
- German (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldlanguagesandcultures/#germanger>)
- Gerontology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/gerontology/#undergraduatestext>)
- Global Health\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofagricultureandlifesciences/entomology/>)
- History (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/history/#undergraduateminortext>)
- International Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/internationalstudies/#undergraduateminortext>)
- Journalism and Mass Communication (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/greenleejournalcomm/>)

- Leadership Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/leadershipstudies/#minortext>)
- Linguistics (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/linguistics/>)
- Mathematics (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/mathematics/#undergraduatemintext>)
- Meteorology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/meteorology/#undergraduatemintext>)
- Middle Eastern Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/middleeasternstudiesminor/>)
- Military Studies (Army Reserve Officers' Training Corps)\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/militarystudies/#undergraduatemintext>)
- Music (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/music/#undergraduatemintext>)
- Music Technology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/music/#musictechnologyminortext>)
- Performing Arts (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/theatreandperformingarts/>)
- Philosophy (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/philosophy/#undergraduatemintext>)
- Physics (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/physicsandastronomy/>)
- Political Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/politicalscience/#minortext>)
- Psychology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/psychology/#minortext>)
- Public Relations (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/publicrelations/#undergraduatemintext>)
- Religious Studies ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/religious\\_studies/#undergraduatemintext](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/religious_studies/#undergraduatemintext))
- Russian Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldlanguagesandcultures/#russianstudiesrus>)
- Sociology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/sociology/#undergraduatemintext>)
- Spanish (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldlanguagesandcultures/#minor-spanish>)
- Speech Communication (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/speechcommunication/#undergraduatemintext>)
- Statistics (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/statistics/#undergraduatemintext>)
- Sustainability\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/sustainability/#curriculumtext>)
- Teaching English as a Second Language (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/teachingenglishsecondlanguage/>)
- Technical Communication (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/technicalcommunication/#undergraduatemintext>)
- U.S. Latino/a Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/uslatino-a-studies/#minortext>)
- Women's and Gender Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/womensandgenderstudies/#undergraduatemintext>)
- World Film Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/worldfilmstudiesminor/>)

\*The College of Liberal Arts and Sciences participates in these interdepartmental minors.

## Business

- Accounting (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/accounting/#undergraduatemintext>)
- Business Analytics (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/businessanalytics/#undergraduatemintext>)
- Business and Technology Consulting (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/marketing/#undergraduatemintext>)
- Entrepreneurship\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/entrepreneurship/>)
- Finance (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/finance/#minortext>)

- General Business (non-business majors) (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/>)
- International Business (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/internationalbusiness/#undergraduateminortext>)
- Management (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/management/#undergraduateminortext>)
- Management Information Systems (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/managementinformationsystems/#undergraduateminortext>)
- Marketing (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/marketing/#undergraduateminortext>)
- Supply Chain Management (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofbusiness/supplychainmanagement/#undergraduateminortext>)

\*The Ivy College of Business participates in this interdisciplinary minor.

## Design

- Critical Studies in Design (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/#minorstext>)
- Design Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/#minorstext>)
- Digital Media (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/#minorstext>)
- Entrepreneurship\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/entrepreneurship/>)
- Environmental Studies\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/environmentalstudies/#minortext>)
- Geographic Information Science\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/#minorstext>)
- Gerontology\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/gerontology/#undergraduatetext>)
- Illustration (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/#minorstext>)
- International Studies\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofliberalartsandsciences/internationalstudies/#undergraduateminortext>)
- Preservation and Cultural Heritage (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/#minorstext>)
- Sustainability\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/sustainability/#curriculumtext>)

- Textile Design\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/#minorstext>)
- Urban Studies\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/#minorstext>)

\*The College of Design participates in these interdepartmental secondary majors and minors.

## Engineering

*For Engineering Majors:*

- Biomedical Engineering (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/biomedicalengineering/>)
- Cyber-Physical Systems\*
- Cyber Security (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/cybersecurityminor/>)
- Energy Systems (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/energy-systems-minor/>)
- Engineering Sales (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/industrialengineering/#minortext>)
- Entrepreneurship\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/entrepreneurship/>)
- Feed Technology\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/feedtechnology/#curriculumtext>)
- Nondestructive Evaluation ([http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/non\\_destructiveevaluationengineering/](http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofengineering/non_destructiveevaluationengineering/))
- Sustainability\* (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/sustainability/#curriculumtext>)

\*The College of Engineering participates in these interdisciplinary minors.

## Human Sciences

- Apparel Merchandising, and Design (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/apparelmerchandisinganddesign/#minortext>)
- Beverage Management (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/hospitalitymanagement/#newitemtext>)

- Culinary Food Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Dance (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/kinesiology/#minorstext>)
- Educational Services in Family and Consumer Sciences (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/familyandconsumerscienceseducationandstudies/#minortext>)
- Entrepreneurship\* (interdisciplinary minor) (<http://catalog.iastate.edu/previouscatalogs/2021-2022/interdisciplinaryprograms/minor/entrepreneurship/>)
- Event Management (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/eventmanagement/#text>)
- Exercise Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/kinesiology/#minorstext>)
- Fashion Culture History and Social Justice (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/apparelmerchandisinganddesign/#apparelmerchandisinganddesignminortext>)
- Financial Counseling and Planning (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/humandevlopmentandfamilystudies/#minortext>)
- Food and Society (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Food Safety\* (interdepartmental minor) (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Food Science (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Gerontology\* (interdisciplinary minor) (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/gerontology/#undergraduatetext>)
- Health Promotion (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/kinesiology/#minorstext>)
- Hospitality Management (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/hospitalitymanagement/#minortext>)
- Human Development and Family Studies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/humandevlopmentandfamilystudies/#minortext>)
- Kinesiology (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/kinesiology/#minorstext>)
- Learning Technologies (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/schoolofeducation/#undergraduatestudytext>)
- Nutrition (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Textile Design (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofdesign/#minorstext>)
- Textile Science and Product Performance (<http://catalog.iastate.edu/previouscatalogs/2021-2022/collegeofhumansciences/apparelmerchandisinganddesign/#minortext>)

## Undergraduate Certificates

An undergraduate certificate provides a way to give formal recognition of focused study in a specialized area that is less comprehensive than required for an undergraduate major. See undergraduate majors, minors, certificates (<http://catalog.iastate.edu/previouscatalogs/2021-2022/undergraduatemajors-alpha/>) for more information.

An undergraduate certificate has the following requirements and understandings:

1. A minimum of 20 credits, with at least 12 credits taken at ISU which are applicable towards the undergraduate certificate requirements
2. At least 9 of the credits taken at Iowa State University must be in courses numbered 300 or above
3. At least 9 credits used for a certificate may not be used to meet any other department, college, or university requirement for the baccalaureate degree except to satisfy the total credit requirement for graduation and to meet credit requirements in courses numbered 300 or above
4. A student may not receive both an undergraduate major and a certificate of the same name
5. For students earning an ISU baccalaureate degree, a certificate is awarded concurrent with or after the ISU baccalaureate degree
6. A certificate is not awarded if the baccalaureate requirements are not finished
7. After receiving a baccalaureate degree from any accredited institution, a student may enroll at ISU to earn a certificate
8. Courses taken for a certificate may not be taken on a pass-not pass basis
9. A cumulative grade point average of at least 2.00 is required in all courses taken at ISU towards the certificate
10. A notation of a completed certificate will be made on a student's transcript and a printed certificate will be awarded.

Iowa State University also offers certificates from the Graduate College (<http://catalog.iastate.edu/previouscatalogs/2021-2022/graduatecollege/#graduatecertificateprograms>).

## **Preprofessional Study**

Information about preprofessional program admissions requirements and career opportunities in human health or law may be obtained in the Liberal Arts and Sciences Advising Center. Information about veterinary medicine admissions requirements and career opportunities may be obtained from the coordinator of the preveterinary program in the Office of the Dean of the College of Veterinary Medicine.

Additional information is available in this catalog in the Preprofessional Study (<http://catalog.iastate.edu/previouscatalogs/2021-2022/preprofessionalstudy/>) section.