

# UNDERGRADUATE MAJORS, CERTIFICATES, MINORS, PRE-PROFESSIONAL STUDY

## ACADEMIC PROGRAM DEFINITIONS

- **Program** - Administrative infrastructure supporting the curriculum.
- **Curriculum** - The requirements for a major, certificate, or minor.
- **Major** - Subject area of study that results in a named baccalaureate, masters, or doctoral degree upon completion of a set of requirements. A major appears on the academic transcript.
- **Secondary major** - A major that can only be earned concurrent with a primary major. A secondary major appears on the academic transcript.
- **Option** - Credits within an undergraduate major in which students choose coursework focused on a subset of the subject area of study. The remainder of the degree requirements are common to all students in the major. Options have also been called specializations, tracks, emphasis areas, focus areas, etc. An option does not appear on the academic transcript.
- **Certificate** - An academic credential in a focused area of study. A certificate appears on the academic transcript and may be earned concurrent with a degree or on its own.
- **Minor** - An academic area of emphasis that is in addition to a major. A minor appears on the academic transcript and must be earned concurrent with a degree.

## UNIVERSITY REQUIREMENTS

### Undergraduate Degree Requirements

Iowa State University offers a wide variety of undergraduate majors housed in six colleges. The requirements for all majors include the following university-wide requirements for graduation:

- Communication Proficiency (<http://catalog.iastate.edu/academics/#communicationproficiencytext>)
- U.S. Cultures and Communities (<http://catalog.iastate.edu/academics/#usdiversityinternationalperspectivesrequirementstext>) (formerly U.S. Diversity)
- International Perspectives (<http://catalog.iastate.edu/academics/#usdiversityinternationalperspectivesrequirementstext>)
- LIB 1600 Introduction to College Level Research
- Minimum of 120-semester credits
- Cumulative grade point average of at least 2.00 in all coursework taken at ISU

See Degree Planning (<http://catalog.iastate.edu/academics/#degreeplanningtext>) for university-wide requirements for the bachelor's degree.

## COLLEGES

- College of Agriculture and Life Sciences (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/>)
- Ivy College of Business (<http://catalog.iastate.edu/collegeofbusiness/>)
- College of Design (<http://catalog.iastate.edu/collegeofdesign/>)
- College of Engineering (<http://catalog.iastate.edu/collegeofengineering/>)
- College of Human Sciences (<http://catalog.iastate.edu/collegeofhumansciences/>)
- College of Liberal Arts and Sciences (<http://catalog.iastate.edu/collegeofliberalartsandsciences/>)

The College of Veterinary Medicine (<http://catalog.iastate.edu/collegeofveterinarymedicine/>) offers the Doctor of Veterinary Medicine degree.

For a listing of the majors offered by the Graduate College, see the Graduate Programs (<http://catalog.iastate.edu/graduatemajors-alpha/>) list in this catalog.

## UNDERGRADUATE MAJORS

See Degree Planning (<http://catalog.iastate.edu/academics/#degreeplanningtext>) for university-wide requirements for the bachelor's degree.

**Major** - Subject area of study that results in a named baccalaureate, masters, or doctoral degree upon completion of a set of requirements. A major appears on the academic transcript.

**Secondary major** - A major that can only be earned in conjunction with a primary major. A secondary major appears on the academic transcript.

**Option** - Credits within an undergraduate major in which students choose coursework focused on a subset of the subject area of study. The remainder of the degree requirements are common to all students in the major. Options have also been called specializations, tracks, emphasis areas, focus areas, etc. An option does not appear on the academic transcript.

- Accounting, B.S. (<http://catalog.iastate.edu/collegeofbusiness/accounting/#undergraduatetext>)
- Actuarial Science, B.S. (<http://catalog.iastate.edu/collegeofbusiness/actuarialscience/#undergraduatemajortext>)
- Advertising, B.A. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/advertising/>)

- Aerospace Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/aerospaceengineering/>)
- Agricultural and Life Sciences Education, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/agriculturaleducationandstudies/#curriculuminagriculturalandlifescienceseducation>)
- Agricultural and Rural Policy Studies, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/agriculturalandruralpolicystudies/>)
- Agricultural Business, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/agriculturalbusiness/>)
- Agricultural Communication, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/agricultural-communication/>)
- Agricultural Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/agriculturalengineering/>)
- Agricultural Studies, B.S. ([http://catalog.iastate.edu/collegeofagricultureandlifesciences/agricultural\\_studies/](http://catalog.iastate.edu/collegeofagricultureandlifesciences/agricultural_studies/))
- Agricultural Systems Technology, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/systemstechnology/>)
- Agronomy, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/agronomy/>)
- Animal Ecology, B.S. ([http://catalog.iastate.edu/collegeofagricultureandlifesciences/animal\\_ecology/](http://catalog.iastate.edu/collegeofagricultureandlifesciences/animal_ecology/))
- Animal Science, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/animalscience/>)
- Anthropology, B.A., B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/anthropology/>)
- Apparel, Merchandising and Design, B.S. (<http://catalog.iastate.edu/collegeofhumansciences/apparelmerchandisinganddesign/#undergraduatestudytext>)
- Architecture, B.Arch. (<http://catalog.iastate.edu/collegeofdesign/architecture/>)
- Art and Design, B.A. (<http://catalog.iastate.edu/collegeofdesign/artanddesign/>)
- Athletic Training (<http://catalog.iastate.edu/collegeofhumansciences/athletictraining/>)
- Biochemistry, B.S. ([http://catalog.iastate.edu/collegeofagricultureandlifesciences/biochemistry\\_biophysics\\_andmolecularbiology/](http://catalog.iastate.edu/collegeofagricultureandlifesciences/biochemistry_biophysics_andmolecularbiology/)) (College of Agriculture and Life Sciences) ([http://catalog.iastate.edu/collegeofagricultureandlifesciences/biochemistry\\_biophysics\\_andmolecularbiology/](http://catalog.iastate.edu/collegeofagricultureandlifesciences/biochemistry_biophysics_andmolecularbiology/))
- Biochemistry, B.S. (College of Liberal Arts and Sciences) ([http://catalog.iastate.edu/collegeofliberalartsandsciences/biochemistry\\_biophysics\\_andmolecularbiology/](http://catalog.iastate.edu/collegeofliberalartsandsciences/biochemistry_biophysics_andmolecularbiology/))
- Biochemistry or Biophysics majors in the College of Liberal Arts and Sciences (<http://catalog.iastate.edu/collegeofliberalartsandsciences/biology/>)
- Bioinformatics and Computational Biology, B.S. ([http://catalog.iastate.edu/collegeofliberalartsandsciences/bioinformaticsandcomputationalbiology\\_undergraduate/](http://catalog.iastate.edu/collegeofliberalartsandsciences/bioinformaticsandcomputationalbiology_undergraduate/))
- Biological Systems Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/biologicalsystemsengineering/>)
- Biological/Pre-Medical Illustration, B.A. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/biopremedillustration/>)
- Biology, B.S. (College of Agriculture and Life Sciences) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/biology/>)
- Biology, B.S. (College of Liberal Arts and Sciences) (<http://catalog.iastate.edu/collegeofliberalartsandsciences/biology/>)
- Biomedical Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/biomedicalengineering/>)
- Biophysics, B.S. ([http://catalog.iastate.edu/collegeofliberalartsandsciences/biochemistry\\_biophysics\\_andmolecularbiology/#biochemistryorbiophysicmajorsinthecollegeofliberalartsandsciences](http://catalog.iastate.edu/collegeofliberalartsandsciences/biochemistry_biophysics_andmolecularbiology/#biochemistryorbiophysicmajorsinthecollegeofliberalartsandsciences))
- Business Administration, B.B.A. (<http://catalog.iastate.edu/collegeofbusiness/businessadministration/>)
- Business Analytics, B.S. (<http://catalog.iastate.edu/collegeofbusiness/businessanalytics/#undergraduatemajortext>)
- Business Economics, B.S. (<http://catalog.iastate.edu/collegeofbusiness/businesseconomics/#departmentstext>)
- Chemical Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/chemicalengineering/>)
- Chemistry, B.A., B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/chemistry/>)
- Civil Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/civilengineering/>)
- Classical Studies - *See Interdisciplinary Studies, B.A., B.S.*
- Climate Science, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/climatescience/#text>)
- Communication Studies, B.A. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/communicationstudies/>)
- Community and Regional Planning, B.S. (<http://catalog.iastate.edu/collegeofdesign/communityandregionalplanning/>)
- Computer Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/computerengineering/>)
- Computer Science, B.A., B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/computerscience/>)
- Construction Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/constructionengineering/>)

- Criminal Justice, B.A. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/criminaljustice/>)
- Culinary Food Science, B.S. (College of Agriculture and Life Sciences) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/culinaryscience/>)
- Culinary Food Science, B.S. (College of Human Sciences) (<http://catalog.iastate.edu/collegeofhumansciences/culinaryscience/>)
- Cyber Security Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/cybersecurityengineering/>)
- Dairy Science, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/dairyscience/>)
- Data Science, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/datascience/>)
- Diet and Exercise, B.S./M.S. (College of Agriculture and Life Sciences) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/dietandexercise/>)
- Diet and Exercise, B.S./M.S. (College of Human Sciences) (<http://catalog.iastate.edu/collegeofhumansciences/dietandexercise/>)
- Dietetics, B.S. (College of Agriculture and Life Sciences) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/dietetics/>)
- Dietetics, B.S. (College of Human Sciences) (<http://catalog.iastate.edu/collegeofhumansciences/dietetics/>)
- Early Childcare Education and Programming, B.S. ([http://catalog.iastate.edu/collegeofhumansciences/early\\_childcare\\_educationandprogramming/](http://catalog.iastate.edu/collegeofhumansciences/early_childcare_educationandprogramming/))
- Early Childhood Education, B.S. ([http://catalog.iastate.edu/collegeofhumansciences/earlychildhood\\_education/](http://catalog.iastate.edu/collegeofhumansciences/earlychildhood_education/))
- Earth Science, B.A., B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/earthscience/>)
- Economics, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/economics/>)
- Education Secondary - *See Undergraduate Secondary Majors*
- Electrical Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/electricalengineering/>)
- Elementary Education, B.S. (<http://catalog.iastate.edu/collegeofhumansciences/elementaryeducation/>)
- English, B.A., B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/english/>)
- Entrepreneurship, B.S. (<http://catalog.iastate.edu/collegeofbusiness/entrepreneurship/>)
- Environmental Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/environmentalengineering/>)
- Environmental Science, B.S. (College of Agriculture and Life Sciences) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/environmentalscience/>)
- Environmental Science, B.S. (College of Liberal Arts and Sciences) (<http://catalog.iastate.edu/collegeofliberalartsandsciences/environmentalscience/>)
- Environmental Studies - *See Undergraduate Secondary Majors*
- Event Management, B.S. (<http://catalog.iastate.edu/collegeofhumansciences/eventmanagement/>)
- Family and Consumer Sciences Education and Studies, B.S. (<http://catalog.iastate.edu/collegeofhumansciences/familyandconsumerscienceseducationandstudies/>)
- Finance, B.S. (<http://catalog.iastate.edu/collegeofbusiness/finance/>)
- Financial Counseling and Planning, B.S. ([http://catalog.iastate.edu/collegeofhumansciences/financial\\_counseling\\_planning/](http://catalog.iastate.edu/collegeofhumansciences/financial_counseling_planning/))
- Food Science, B.S. (College of Agriculture and Life Sciences) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/foodscience/>)
- Food Science, B.S. (College of Human Sciences) (<http://catalog.iastate.edu/collegeofhumansciences/foodscience/>)
- Forestry, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/forestry/>)
- French - *See World Languages and Cultures, B.A.*
- Genetics, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/genetics/>) (College of Agriculture and Life Sciences) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/genetics/>)
- Genetics, B.S. (College of Liberal Arts and Sciences) (<http://catalog.iastate.edu/collegeofliberalartsandsciences/genetics/>)
- Geology, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/geology/>)
- German - *See World Languages and Cultures, B.A.*
- Global Resource Systems, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/globalresourcesystems/>)
- Graphic Design, B.F.A. (<http://catalog.iastate.edu/collegeofdesign/graphicdesign/#curriculumtext>)
- Healthcare Management, B.S. (<http://catalog.iastate.edu/collegeofbusiness/healthcaremanagement/>)
- History, B.A., B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/history/#undergraduatetext>)
- Horticulture, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/horticulture/>)
- Hospitality Management, B.S. (<http://catalog.iastate.edu/collegeofhumansciences/hospitalitymanagement/#undergraduatetext>)
- Human Development and Family Studies, B.S. ([http://catalog.iastate.edu/collegeofhumansciences/humandevelopment\\_familystudies/](http://catalog.iastate.edu/collegeofhumansciences/humandevelopment_familystudies/))

- Human Resource Management, B.S. (<http://catalog.iastate.edu/collegeofbusiness/humanresourcemanagement/>)
- Industrial Design, B.I.D. (<http://catalog.iastate.edu/collegeofdesign/industrialdesign/>)
- Industrial Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/industrialengineering/>)
- Industrial Technology, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/industrialtechnology/>)
- Integrated Studio Arts. B.F.A. (<http://catalog.iastate.edu/collegeofdesign/integratedstudioarts/>)
- Interdisciplinary Design - *See Undergraduate Secondary Majors*
- Interdisciplinary Studies, B.A., B.S. (<http://catalog.iastate.edu/interdisciplinaryprograms/interdisciplinarystudies/>)
  - Classical Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/classicalstudies/>)
  - U.S. Latino/a Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/uslatino-a-studies/>)
- Interior Design, B.F.A. (<http://catalog.iastate.edu/collegeofdesign/interiordesign/>)
- International Agriculture - *See Undergraduate Secondary Majors*
- International Business - *See Undergraduate Secondary Majors*
- International Studies - *See Undergraduate Secondary Majors*
- Journalism and Mass Communication, B.S. ([http://catalog.iastate.edu/collegeofliberalartsandsciences/journalism\\_and\\_mass\\_communication/](http://catalog.iastate.edu/collegeofliberalartsandsciences/journalism_and_mass_communication/))
- Kinesiology and Health, B.S. (<http://catalog.iastate.edu/collegeofhumansciences/kinesiology/#text>)
- Landscape Architecture, B.L.A. (<http://catalog.iastate.edu/collegeofdesign/landscapearchitecture/>)
- Liberal Studies, B.L.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/liberalstudies/>) (a general studies degree)
- Linguistics, B.A. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/linguistics/>)
- Management, B.S. (<http://catalog.iastate.edu/collegeofbusiness/management/>)
- Management Information Systems, B.S. (<http://catalog.iastate.edu/collegeofbusiness/managementinformationsystems/>)
- Marketing, B.S. (<http://catalog.iastate.edu/collegeofbusiness/marketing/>)
- Materials Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/materialsengineering/>)
- Mathematics, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/mathematics/>)
- Mechanical Engineering, B.S. (<http://catalog.iastate.edu/collegeofengineering/mechanicalengineering/>)
- Meteorology, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/meteorology/>)
- Microbiology, B.S. (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/microbiology/>)
- Music, B.A., B.Mus. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/music/>)
- Nursing, B.S.N. (College of Agriculture and Life Sciences) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/nursing/>)
- Nursing, B.S.N. (College of Human Sciences) (<http://catalog.iastate.edu/collegeofhumansciences/nursing/>)
- Nutritional Science, B.S. (College of Agriculture and Life Sciences) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/nutritionalscience/>)
- Nutritional Science, B.S. (College of Human Sciences) (<http://catalog.iastate.edu/collegeofhumansciences/nutritionalscience/>)
- Performing Arts, B.A. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/theatreandperformingarts/>)
- Philosophy, B.A. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/philosophy/>)
- Physics, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/physicsandastronomy/>)
- Political Science, B.A. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/politicalscience/>)
- Professional Studies, B.L.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/liberalstudies/>). (a general studies degree)
- Psychology, B.A., B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/psychology/>)
- Public Relations, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/publicrelations/>)
- Religious Studies, B.A. ([http://catalog.iastate.edu/collegeofliberalartsandsciences/religious\\_studies/](http://catalog.iastate.edu/collegeofliberalartsandsciences/religious_studies/))
- Seed Science - *See Undergraduate Secondary Majors*
- Sociology, B.A., B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/sociology/>)
- Software Engineering, B.S. (College of Engineering) (<http://catalog.iastate.edu/collegeofengineering/softwareengineering/>)
- Software Engineering, B.S. (College of Liberal Arts and Sciences) (<http://catalog.iastate.edu/collegeofliberalartsandsciences/softwareengineering/>)
- Spanish - *See World Languages and Cultures, B.A.*
- Statistics, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/statistics/>)

- Supply Chain Management, B.S. (<http://catalog.iastate.edu/collegeofbusiness/supplychainmanagement/>)
- Technical Communication, B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/technicalcommunication/>)
- Theatre - See *Performing Arts, B.A.*
- U.S. Latino/a Studies - See *Interdisciplinary Studies, B.A., B.S.*
- Women's and Gender Studies, B.A., B.S. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/womensandgenderstudies/>)
- World Languages and Cultures B.A. (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/>)
  - French (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/#frenchfrnch>)
  - German (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/#germanger>)
  - Spanish (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/#spanishspan>)

## Undergraduate Secondary Majors

See Degree Planning (<http://catalog.iastate.edu/academics/#degreeplanningtext>) for university-wide requirements for the bachelor's degree.

**Secondary major** - A major that can only be earned in conjunction with a primary major. A secondary major appears on the academic transcript.

- Education Secondary (<http://catalog.iastate.edu/collegeofhumansciences/educationsecondary/>)
- Environmental Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/environmentalstudies/>)
- Interdisciplinary Design (<http://catalog.iastate.edu/collegeofdesign/design/>)
- International Agriculture (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/internationalagriculture/>)
- International Business (<http://catalog.iastate.edu/collegeofbusiness/internationalbusiness/>)
- International Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/internationalstudies/>)
- Seed Science (<http://catalog.iastate.edu/interdisciplinaryprograms/seedscience/>)

## UNDERGRADUATE CERTIFICATES

See Degree Planning (<http://catalog.iastate.edu/academics/#degreeplanningtext>) for university-wide requirements for an undergraduate certificate.

**Certificate** - An academic credential in a focused area of study. A certificate appears on the academic transcript and may be earned concurrently with a degree or on its own.

- Actuarial Science (<http://catalog.iastate.edu/collegeofbusiness/actuarialscience/#certificatetext>)
- Beef Cattle Production Management (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/animalscience/#undergraduatecertificatetext>)
- Computing Applications (<http://catalog.iastate.edu/collegeofliberalartsandsciences/computingapplicationscertificate/>)
- Dairy Cattle Production Management (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/animalscience/#undergraduatecertificatetext>)
- Data Science (<http://catalog.iastate.edu/collegeofliberalartsandsciences/datascience/#certificatetext>)
- Equine Science and Management (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/animalscience/#undergraduatecertificatetext>)
- Health Coach (<http://catalog.iastate.edu/collegeofhumansciences/healthcoach/>)
- Integrated Studio Arts (<http://catalog.iastate.edu/collegeofdesign/integratedstudioarts/#certificatetext>)
- Latin American Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/latinamericanstudies/>)
- Leadership Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/leadershipstudies/#certificatetext>)
- Merchandising (<http://catalog.iastate.edu/collegeofhumansciences/apparelmerchandisinganddesign/#merchandisingcertificatetext>) (^)
- Occupational Safety (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/occupationsafety/>)
- Poultry Production Management (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/animalscience/#undergraduatecertificatetext>)
- Professional Sales (<http://catalog.iastate.edu/collegeofbusiness/marketing/#undergraduatecertificatetext>)
- Science Communication (<http://catalog.iastate.edu/collegeofliberalartsandsciences/sciencecommcertificate/#text>)
- Soil Science (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/agronomy/#undergraduatecertificatetext>) (^)
- Swine Production Management (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/animalscience/#undergraduatecertificatetext>)

Certificates may be earned at the same time as an ISU baccalaureate degree or after the completion of a baccalaureate degree from any



accredited institution. Those marked with a (\*) may also be earned after the completion of an associate of arts (AA) or associate of science (AS) degree from any accredited institution.

Iowa State University also offers certificates from the Graduate College (<http://catalog.iastate.edu/graduatemajors-alpha/#certificatestext>).

## UNDERGRADUATE MINORS

See Degree Planning (<http://catalog.iastate.edu/academics/#degreeplanningtext>) for university-wide requirements for an undergraduate minor.

**Minor** - An academic area of emphasis that is in addition to a major. A minor appears on the academic transcript and must be earned in conjunction with a degree.

- Accounting (<http://catalog.iastate.edu/collegeofbusiness/accounting/#undergraduateminortext>)
- Advertising (<http://catalog.iastate.edu/collegeofliberalartsandsciences/advertising/#undergraduateminortext>)
- African and African American Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/africanandafricanamericanstudies/#minortext>)
- Agricultural Business (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/agriculturalbusiness/#minortext>)
- Agricultural Systems Technology (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/systemstechnology/#undergraduateminortext>)
- Agriculture and Life Sciences Education (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/agriculturaleducationandstudies/#undergraduateminortext>)
- Agronomy (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/agronomy/#undergraduateminortext>)
- American Indian Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/americanindianstudies/#curriculumtext>)
- Animal Ecology ([http://catalog.iastate.edu/collegeofagricultureandlifesciences/animal\\_ecology/#undergraduateminortext](http://catalog.iastate.edu/collegeofagricultureandlifesciences/animal_ecology/#undergraduateminortext))
- Animal Science (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/animalscience/#undergraduateminortext>)
- Anthropology (<http://catalog.iastate.edu/collegeofliberalartsandsciences/anthropology/#undergraduateminortext>)
- Apparel, Merchandising, and Design (<http://catalog.iastate.edu/collegeofhumansciences/apparelmerchandisinganddesign/#minortext>)
- Astronomy (<http://catalog.iastate.edu/collegeofliberalartsandsciences/physicsandastronomy/#utext>)
- Beverage Management (<http://catalog.iastate.edu/collegeofhumansciences/hospitalitymanagement/#minortext>)
- Biochemistry ([http://catalog.iastate.edu/collegeofliberalartsandsciences/biochemistry\\_biophysics\\_andmolecularbiology/#minortext](http://catalog.iastate.edu/collegeofliberalartsandsciences/biochemistry_biophysics_andmolecularbiology/#minortext))
- Bioinformatics and Computational Biology ([http://catalog.iastate.edu/collegeofliberalartsandsciences/bioinformaticsandcomputationalbiology\\_undergraduate/#minortext](http://catalog.iastate.edu/collegeofliberalartsandsciences/bioinformaticsandcomputationalbiology_undergraduate/#minortext))
- Biological/Pre-Medical Illustration (<http://catalog.iastate.edu/collegeofliberalartsandsciences/biopremedillustration/#minortext>)
- Biology (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/biology/#undergraduateminortext>)
- Biomedical Engineering (<http://catalog.iastate.edu/collegeofengineering/biomedicalengineering/#undergraduateminortext>)
- Business Analytics (<http://catalog.iastate.edu/collegeofbusiness/businessanalytics/#undergraduateminortext>)
- Business and Technology Consulting (<http://catalog.iastate.edu/collegeofbusiness/marketing/#undergraduateminortext>)
- Chemistry (<http://catalog.iastate.edu/collegeofliberalartsandsciences/chemistry/#undergraduateminortext>)
- Chinese Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/#chinesetext>)
- Classical Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/classicalstudies/#undergraduateminortext>)
- Communication Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/communicationstudies/#minortext>)
- Computer Science (<http://catalog.iastate.edu/collegeofliberalartsandsciences/computerscience/#undergraduateminortext>)
- Criminal Justice (<http://catalog.iastate.edu/collegeofliberalartsandsciences/criminaljustice/#minortext>)
- Critical Studies in Design (<http://catalog.iastate.edu/collegeofdesign/#minorstext>)
- Culinary Food Science (<http://catalog.iastate.edu/collegeofhumansciences/foodscienceandhumannutrition/#undergraduateminortext>)

- Cyber-Physical Systems (<http://catalog.iastate.edu/collegeofengineering/cyberphysicalsystems/>)
- Cyber Security (<http://catalog.iastate.edu/collegeofengineering/cybersecurityminor/>)
- Dance (<http://catalog.iastate.edu/collegeofhumansciences/kinesiology/#minorstext>)
- Data Science (<http://catalog.iastate.edu/collegeofliberalartsandsciences/datascience/#minorundergraduatetext>)
- Design Studies (<http://catalog.iastate.edu/collegeofdesign/#minorstext>)
- Digital Media (<http://catalog.iastate.edu/collegeofdesign/#minorstext>)
- Economics (<http://catalog.iastate.edu/collegeofliberalartsandsciences/economics/#undergraduateminortext>)
- Education Services in Family and Consumer Sciences (<http://catalog.iastate.edu/collegeofhumansciences/humandevlopmentandfamilystudies/#minortext>)
- Energy Systems Engineering (<http://catalog.iastate.edu/collegeofengineering/energy-systems-minor/>)
- Engineering Sales (<http://catalog.iastate.edu/collegeofengineering/industrialengineering/#minortext>)
- English (<http://catalog.iastate.edu/collegeofliberalartsandsciences/english/#undergraduateminortext>)
- Entrepreneurship (<http://catalog.iastate.edu/interdisciplinaryprograms/entrepreneurship/>)
- Environmental Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/environmentalstudies/#minortext>)
- Ethics (<http://catalog.iastate.edu/collegeofliberalartsandsciences/philosophy/#undergraduateminortext>)
- Event Management (<http://catalog.iastate.edu/collegeofhumansciences/eventmanagement/#undergraduateminortext>)
- Exercise Science (<http://catalog.iastate.edu/collegeofhumansciences/kinesiology/#minorstext>)
- Fashion Culture History and Social Justice (<http://catalog.iastate.edu/collegeofhumansciences/apparelmerchandisinganddesign/#minortext>)
- Feed Technology (<http://catalog.iastate.edu/interdisciplinaryprograms/feedtechnology/>)
- Finance (<http://catalog.iastate.edu/collegeofbusiness/finance/#minortext>)
- Financial Counseling and Planning (<http://catalog.iastate.edu/collegeofhumansciences/humandevlopmentandfamilystudies/#minortext>)
- Food and Society (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Food Safety (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Food Science (<http://catalog.iastate.edu/collegeofhumansciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Forestry (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/forestry/#undergraduateminortext>)
- French (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/#frenchtext>)
- General Business (<http://catalog.iastate.edu/collegeofbusiness/>)
- Genetics (AGLS) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/genetics/#undergraduateminortext>)
- Genetics (LAS) (<http://catalog.iastate.edu/collegeofliberalartsandsciences/genetics/#undergraduateminortext>)
- Geographic Information Science (GIS) (<http://catalog.iastate.edu/collegeofdesign/#minorstext>)
- Geology (<http://catalog.iastate.edu/collegeofliberalartsandsciences/geology/#undergraduateminortext>)
- German (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/#germantext>)
- Gerontology (<http://catalog.iastate.edu/collegeofhumansciences/gerontology/#undergraduatetext>)
- Global Health (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/entomology/>)
- Global Human Sciences (<http://catalog.iastate.edu/collegeofhumansciences/globalhumansciences/>)
- Health Promotion (<http://catalog.iastate.edu/collegeofhumansciences/kinesiology/#minorstext>)
- History (<http://catalog.iastate.edu/collegeofliberalartsandsciences/history/#undergraduateminortext>)
- Horticulture (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/horticulture/#undergraduateminortext>)
- Hospitality Management (<http://catalog.iastate.edu/collegeofhumansciences/hospitalitymanagement/#minortext>)
- Human Development and Family Studies ([http://catalog.iastate.edu/collegeofhumansciences/humandevlopment\\_familystudies/#undergraduateminortext](http://catalog.iastate.edu/collegeofhumansciences/humandevlopment_familystudies/#undergraduateminortext))
- Illustration (<http://catalog.iastate.edu/collegeofdesign/#minorstext>)

- Industrial Technology (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/industrialtechnology/#minortext>)
- Insect Science (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/entomology/#minor-insectscience>)
- International Agriculture (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/internationalagriculture/#minortext>)
- International Business (<http://catalog.iastate.edu/collegeofbusiness/internationalbusiness/#undergraduateminortext>)
- International Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/internationalstudies/#undergraduateminortext>)
- Journalism and Mass Communication ([http://catalog.iastate.edu/collegeofliberalartsandsciences/journalism\\_and\\_mass\\_communication/#undergraduateminortext](http://catalog.iastate.edu/collegeofliberalartsandsciences/journalism_and_mass_communication/#undergraduateminortext))
- Kinesiology (<http://catalog.iastate.edu/collegeofhumansciences/kinesiology/#minortext>)
- Leadership Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/leadershipstudies/#minortext>)
- Learning and Leadership Sciences (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/learningandleadershipsciences/>)
- Learning Technologies (<http://catalog.iastate.edu/collegeofhumansciences/schoolofeducation/#undergraduatestudytext>)
- Landscape Management (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/horticulture/#undergraduateminortext>)
- Linguistics (<http://catalog.iastate.edu/collegeofliberalartsandsciences/linguistics/#undergraduateminortext>)
- Management (<http://catalog.iastate.edu/collegeofbusiness/management/#undergraduateminortext>)
- Management Information Systems (<http://catalog.iastate.edu/collegeofbusiness/managementinformationsystems/#undergraduateminortext>)
- Marketing (<http://catalog.iastate.edu/collegeofbusiness/marketing/#undergraduateminortext>)
- Mathematics (<http://catalog.iastate.edu/collegeofliberalartsandsciences/mathematics/#undergraduateminortext>)
- Meat Science (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/animalscience/#undergraduateminortext>)
- Meteorology (<http://catalog.iastate.edu/collegeofliberalartsandsciences/meteorology/#undergraduateminortext>)
- Microbiology (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/microbiology/#undergraduateminortext>)
- Middle Eastern Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/middleeasternstudiesminor/>)
- Military Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/militarystudies/#undergraduatetext>)
- Music (<http://catalog.iastate.edu/collegeofliberalartsandsciences/music/#undergraduateminortext>)
- Music Technology (<http://catalog.iastate.edu/collegeofliberalartsandsciences/music/#undergraduateminortext>)
- Nondestructive Evaluation ([http://catalog.iastate.edu/collegeofengineering/non\\_destructiveevaluationengineering/](http://catalog.iastate.edu/collegeofengineering/non_destructiveevaluationengineering/))
- Nutrition (<http://catalog.iastate.edu/collegeofhumansciences/foodscienceandhumannutrition/#undergraduateminortext>)
- Performing Arts (Theatre) (<http://catalog.iastate.edu/collegeofliberalartsandsciences/theatreandperformingarts/#performingartsminortext>)
- Pharmacology and Toxicology (<http://catalog.iastate.edu/collegeofveterinarymedicine/pharmacologyandtoxicology/#curriculumtext>)
- Philosophy (<http://catalog.iastate.edu/collegeofliberalartsandsciences/philosophy/#undergraduateminortext>)
- Physics (<http://catalog.iastate.edu/collegeofliberalartsandsciences/physicsandastronomy/#utext>)
- Political Science (<http://catalog.iastate.edu/collegeofliberalartsandsciences/politicalscience/#minortext>)
- Preservation and Cultural Heritage (<http://catalog.iastate.edu/collegeofdesign/#minortext>)
- Psychology (<http://catalog.iastate.edu/collegeofliberalartsandsciences/psychology/#minortext>)
- Public Relations (<http://catalog.iastate.edu/collegeofliberalartsandsciences/publicrelations/#undergraduateminortext>)
- Religious Studies ([http://catalog.iastate.edu/collegeofliberalartsandsciences/religious\\_studies/#undergraduateminortext](http://catalog.iastate.edu/collegeofliberalartsandsciences/religious_studies/#undergraduateminortext))
- Russian Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/#russiantext>)



- Sociology (<http://catalog.iastate.edu/collegeofliberalartsandsciences/sociology/#undergraduateminortext>)
- Spanish (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/#spanishtext>)
- Spanish Translation and Interpretation Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldlanguagesandcultures/#spanishtext>)
- Speech Communication (<http://catalog.iastate.edu/collegeofliberalartsandsciences/speechcommunication/#undergraduateminortext>)
- Statistics (<http://catalog.iastate.edu/collegeofliberalartsandsciences/statistics/#undergraduateminortext>)
- Supply Chain Management (<http://catalog.iastate.edu/collegeofbusiness/supplychainmanagement/#undergraduateminortext>)
- Sustainability (<http://catalog.iastate.edu/interdisciplinaryprograms/sustainability/>)
- Teaching English as a Second Language (<http://catalog.iastate.edu/collegeofliberalartsandsciences/teachingenglishsecondlanguage/>)
- Technical Communication (<http://catalog.iastate.edu/collegeofliberalartsandsciences/technicalcommunication/#undergraduateminortext>)
- Textile Design (<http://catalog.iastate.edu/collegeofdesign/#minorstext>)
- Textile Science and Product Performance (<http://catalog.iastate.edu/collegeofhumansciences/apparelmerchandisinganddesign/#minortext>)
- Theatre - See Performing Arts
- U.S. Latino/a Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/uslatino-a-studies/#minortext>)
- Urban Studies (<http://catalog.iastate.edu/collegeofdesign/#minorstext>)
- Women's and Gender Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/womensandgenderstudies/#undergraduateminortext>)
- World Film Studies (<http://catalog.iastate.edu/collegeofliberalartsandsciences/worldfilmstudiesminor/>)

work with an advisor who helps with course sequencing and academic preparation for application to professional schools.

For more details, explore the pre-professional (<http://catalog.iastate.edu/preprofessionalstudy/>) section of the catalog and explore the links below.

## Tracks

- Pre-Health & Pre-Medicine (<https://pre-health.las.iastate.edu/>)
  - Dentistry (<https://pre-health.las.iastate.edu/health-professions/dentistry/>)
  - Human Medicine (<https://pre-health.las.iastate.edu/health-professions/human-medicine/>)
  - Optometry (<https://pre-health.las.iastate.edu/health-professions/optometry/>)
  - Pharmacy (<https://pre-health.las.iastate.edu/health-professions/pharmacy/>)
  - Physical Therapy (<https://pre-health.las.iastate.edu/health-professions/physical-therapy/>)
  - Physician Assistant (<https://pre-health.las.iastate.edu/health-professions/physicians-assistant/>)
- Pre-Law (<http://catalog.iastate.edu/preprofessionalstudy/#prelawtext>)
- Pre-Veterinary Medicine (<http://catalog.iastate.edu/collegeofveterinarymedicine/>)

## PRE-PROFESSIONAL STUDY

Requirements for admission to most professional academic programs can be met by study at Iowa State University. Pre-professional programs such as pre-law or pre-med are not degree-granting majors, but rather tracks for students who plan to attend professional school (e.g., dental, medical, optometry, physical therapy, law, or veterinary medicine) after their undergraduate studies. Students can major in any field, and they will