Geoscience, BA

Requirements

The Bachelor of Arts with a major in geoscience requires a minimum of 120 s.h., including at least 56 s.h. of work for the major (at least 37 s.h. in earth and environmental sciences courses, at least 16 s.h. in supporting disciplines, and a field requirement course). Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They also must complete the College of Liberal Arts and Sciences GE CLAS Core. Transfer students must complete a minimum of 15 s.h. of coursework in the Department of Earth and Environmental Sciences.

The geoscience major for the BA is designed to provide students with a varied background in geology and a broader choice of electives than is practical in the Bachelor of Science program. It is intended for students who are interested in the fundamentals of geology or earth science teaching (see the following section, "Teacher Licensure"). Completing the minimum requirements for this degree may not adequately prepare a student for an entry-level professional job in geology.

The department recommends that students fulfill the GE CLAS Core World Languages requirement with French, German, Russian, or Spanish and the Social Sciences requirement with approved coursework in economics, geography, or anthropology.

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

Requirements	Hours
Earth and Environmental Sciences Courses	37-40
Mathematics Courses	10
Chemistry Courses	6-8
Field Requirement	3-4

Earth and Environmental Sciences Courses

Course #	Title	Hours
Both of these:		
EES:2200	Historical Geology	4
EES:2410	Mineralogy	4
One of these:		
EES:1030	Introduction to Earth Science	4
EES:1050	Introduction to Geology	4
One or both of these:		
EES:1040	Evolution and the History of Life	4
EES:3210	Principles of Paleontology	3
At least three of these:		
EES:3300	Sedimentary Geology	4
EES:3360	Soil Genesis and Geomorphology	3
EES:3380	Fluvial Geomorphology	3
EES:3500	Igneous and Metamorphic Petrology	4
EES:3840	Structural Geology	4
EES:4630	Hydrogeology	4
And:		
Earth and environmental sciences electives numbered EES:3000 or above		12

Mathematics

Students must complete the following coursework in mathematics.

Course #	Title	Hours
College-level mathematics (may include computer science and statistics), excluding MATH:1210		10

Chemistry

Students must complete at least two college-level chemistry courses as a sequence, as follows. Chemistry courses numbered below CHEM:1070 General Chemistry I do not count toward this requirement.

Course #	Title	Hours
One of these sequences:		
CHEM:1070 & CHEM:1080	General Chemistry I-II	6
CHEM:1110 & CHEM:1120	Principles of Chemistry I-II	8

Field Requirement

To complete the major, students must have field experience. They may take at least 4 s.h. of EES:1179 Geology of National Parks: Preparation and Planning and EES:1180 Geology of National Parks: Field Trip, and/or EES:3160 Field Trip to satisfy this requirement. Either EES:1179 and EES:1180, or EES:3160, may be repeated and/or combined to fulfill the necessary semester hours.

Alternatively, students may take one semester of EES:2831 Geologic Field Methods or the Iowa Lakeside Laboratory session for 3 s.h.

Course #	Title	Hours
At least 4 s.h. from these:		
EES:1179-EES:1180	Geology of National Parks: Preparation and Planning - Geology of National Parks: Field Trip	3
EES:3160	Field Trip	2
Or 3 s.h. from one of these:		
EES:2831	Geologic Field Methods	3
One natural science session at Iowa Lakeside Laboratory for a minimum of 3 s.h.		3

Independent Research Option for Geoscience Majors

A junior or senior who is ready to pursue independent research for credit in geoscience may assist a faculty member or graduate student with a current research project in EES:2190 Directed Study or may initiate a small-scale project involving a combination of field, laboratory, and library investigation in EES:3190 Directed Study. Independent study is encouraged and may lead to an honors thesis in EES:4999 Honors Thesis in Geoscience or a senior thesis in EES:4990 Senior Thesis in Geoscience that may be published subsequently.

Teacher Licensure

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

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