

ENVIRONMENTAL GEOLOGY, BA

Degree: Bachelor of Arts (BA)

Major: Environmental Geology

Program Overview

Students in earth, environmental, and planetary sciences obtain a solid background in basic science and mathematics as well as intensive training in the major. In addition, because of the wide variety of ways in which geologic knowledge can be applied, all students are encouraged to take electives in subjects appropriate to their personal objectives, which may range from the engineering applications of geology to the socioeconomic and legal systems bearing on environmental issues. The undergraduate programs stress practical experience and fieldwork as well as classroom study. The environmental geology major combines courses in geological sciences with courses in basic and applied sciences to provide students with an understanding of environmental problems, with employable skills, and with a background for graduate study or professional school.

All students participate in a three-semester Senior Project sequence in which they propose a research project, conduct the research, write a thesis, and present it to the department.

Learning Outcomes

- Students will be able to demonstrate an understanding of the key concepts and approaches in environmental geology sufficient to apply this understanding to the interpretation of a wide range of earth processes (and their linkages) on different temporal and spatial scales.
- Students will be able to critically evaluate scientific arguments in geology.
- Students will be able to demonstrate competence in standard methods for collecting and evaluating geologic data.
- Students will be able to apply quantitative and qualitative tools in the analysis and interpretation of environmental geologic data
- Students will be able to execute a geologic research project, including the use of primary literature, collection and interpretation of evidence, and reporting of results.

Undergraduate Policies

For undergraduate policies and procedures, please review the Undergraduate Academics section of the General Bulletin.

Accelerated Master's Programs

Undergraduate students may participate in accelerated programs toward graduate or professional degrees. For more information and details of the policies and procedures related to accelerated studies, please visit the Undergraduate Academics section of the General Bulletin.

Program Requirements

Students seeking to complete this major and degree program must meet the general requirements for bachelor's degrees and the Unified General Education Requirements. Students completing

this program as a secondary major while completing another undergraduate degree program do not need to satisfy the school-specific requirements associated with this major.

Code	Title	Hours
Required Courses:		
EEPS 110	Physical Geology	3
EEPS 119	Geology Laboratory	1
EEPS 210	Earth History: Time, Tectonics, Climate, and Life	3
EEPS 220	Environmental Geology	3
EEPS 303	Environmental Law	3
or EEPS 202	Global Environmental Problems	
EEPS 305	Geomorphology and Remote Sensing	3
EEPS 317	Introduction to Field Methods	3
EEPS 321	Hydrogeology	3
EEPS 390	Introduction to Geological Research	3
EEPS 391	Senior Project	2
EEPS 392	Professional Presentation	2
BIOL 114	Principles of Biology	3
CHEM 105	Principles of Chemistry I	3
CHEM 106	Principles of Chemistry II	3
CHEM 113	Principles of Chemistry Laboratory	2
ESTD 101	Introduction to Environmental Thinking	3
STAT 201	Basic Statistics for Social and Life Sciences	3
MATH 125	Math and Calculus Applications for Life, Managerial, and Social Sci I	4
or MATH 121	Calculus for Science and Engineering I	
MATH 126	Math and Calculus Applications for Life, Managerial, and Social Sci II	4
or MATH 122	Calculus for Science and Engineering II	
<i>Choose one of the following:</i>		4
PHYS 115	Introductory Physics I	
PHYS 121	General Physics I - Mechanics	
PHYS 123	Physics and Frontiers I - Mechanics	
Electives ^a		9
Total Hours		67

^a Three additional courses at the 200-level or higher which related to the science or society implications of environmental concerns. Must be approved by department advisor.

In the above majors, the student and their advisor will design the remainder of the curriculum based on individual interests, in accordance with departmental and college requirements. Through the Accelerated Master's Program, students may earn a bachelor's and a master's degree in five years. Special programs, such as interdisciplinary majors, also may be arranged.