

Earth and Environmental Sciences Major

This new major (available Fall 2010) includes concentrations in atmosphere and surface processes and geoscience. This flexibility enables students to build a program suited to their particular interests and career goals.

DESCRIPTION:

The University offers a bachelor of arts (B.A.) and a bachelor of science (B.S.) in earth and environmental sciences with concentrations in atmosphere and surface processes and geoscience.

Course work includes a core of courses and laboratory work in environmental science, world culture and environments, earth science, and conservation and sustainability. Students also complete a core of mathematics and science courses in chemistry, calculus, and physics. Electives are selected from areas such as environmental processes, water and geochemistry, geobiology, ge archaeology, physical geosciences, and research.

In addition, each student selects a concentration in one of the following areas.

- **Atmospheric and Surface Processes:** This concentration focuses on the field and laboratory techniques needed to understand earth surface processes and climate. Course work includes physical geography, weather and climate, geomorphic processes, chemistry, and physics. Graduates are prepared for careers in fields such as land reclamation, surface water/soil contamination, and conservation of natural resources.
- **Geoscience:** This concentration focuses on field and laboratory techniques needed to interpret earth and environmental processes, analyze and evaluate scientific data, and assess new environmental issues. Course work includes earth history, mineralogy, petrology, structural geology, field geology, environmental geology, stratigraphy and sedimentation, chemistry, and physics. Graduates are prepared for professional careers as geologists or hydrogeologist in a variety of industries or in government agencies, including those dealing with distribution and quality of groundwater, pollution problems, waste disposal, and hazards such as flooding and erosion.

Students benefit from one-on-one guidance from dedicated faculty mentors with diverse expertise. Most hold doctoral degrees—and all engage in research and scholarly publication. Course work is further enriched with lectures and presentations by graduate student researchers and visiting scholars from around the nation and overseas.

Classroom activities and research are enhanced by state-of-the-art laboratories, field camps, and fieldwork as part of faculty research projects conducted in a wide variety of environments around the world. Internships are available. Other opportunities include the University's Honors Program and study abroad programs, which range from summer programs to a single semester or a full academic year in over 25 countries.

A number of activities and organizations are available that enable students to interact with other students and professionals in the industry. Student organizations include Gamma Theta Upsilon, Kappa Nu Chapter, the Anthropology Club, and the Earth Science Club. In addition, the department regularly hosts special events.

Important Note:

Earth and environmental sciences is a new major available Fall 2010. New students who are beginning their studies Spring or Summer 2010 should select "geology" as their intended major on their admission applications. Once admitted, students will be contacted by an advisor and transitioned into the earth and environmental sciences major.

CAREERS:

Our graduates possess the marketable skills, knowledge, and training in field and laboratory techniques necessary for professional positions. The program also provides a sound foundation for graduate study. Career options vary depending on the concentration selected.

There is an increasing need for geoscientist and environmental scientists who can apply their expertise to finding energy and mineral resources as well as evaluating and mitigating the impact of humans on the environment.

Our graduates are prepared for careers with geological, environmental, and engineering firms, analytical laboratories, petroleum and mining companies, and hydrological consulting firms. They are qualified for careers with federal agencies such as the United States Geological Survey, Environmental Protection Agency, Department of Energy, or National Oceanic and Atmospheric Administration. On the state level, career opportunities include positions with state geological surveys or departments of natural resources, environmental management, or private environmental or engineering firms.

FINANCIAL AID & SCHOLARSHIPS

Students have many sources of financial support for their studies, including financial aid, work-study programs, veterans' benefits, and special scholarships for entering freshmen and transfer students. In addition, the Department of Earth and Environmental Systems offers a number of scholarships and awards. For details, visit the department's Web site.

FURTHER INFORMATION:

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