



Major to Career Guide

Earth Sciences

Degree: Bachelor of Science

Introduction

Earth Sciences encompasses a range of disciplines including geology, meteorology, oceanography, and astronomy, each of which deals with a different part of our physical surroundings. Select from five emphases.

The multidisciplinary Environmental Earth Sciences emphasis is intended for individuals who wish to pursue careers with responsibilities that include environmental monitoring, regulation or management. Students may prepare for entry-level positions in the environmental industry or governmental agencies, or for graduate education in such fields as resource management, environmental public policy and environmental law.

The General Earth Sciences emphasis provides a multidisciplinary background in the earth sciences, with opportunity to develop a sequence of courses, including both earth science and supporting science and mathematics, which best serve individual interests and career goals.

The science of geology explores the physical makeup of the earth, the processes that shape it and the history of its development. This program provides a broad background in geology and emphasizes the study of geology in the field and in the laboratory.

The science of meteorology seeks to understand the atmosphere and its phenomena by considering the forces that act on it, the processes that determine its behavior and the interaction between it and the earth beneath. This program provides a broad background in meteorology and stresses practical interpretation of weather data and the importance of meteorology to many aspects of human endeavor.

See the Secondary Endorsement Programs Major to Career Guide for more information about the earth sciences secondary teaching emphasis.

What are some of the job tasks?

- Analyze satellite-derived data and images
- Analyze sea water/groundwater samples
- Collect sediment samples from the sea floor
- Create geological and topographic maps
- Dive in submersibles/Forecast daily weather
- Model weather and climate using computers
- Monitor oil well drilling/air pollution
- Study ancient marine sediments/fossils
- Study reef systems while scuba diving
- Use satellite images to explore for valuable minerals

What are some potential occupations?

Astronomer
Climatologist
Environmental Specialist
Geologist
Marine Scientist
Meteorologist
Oceanographer
Oceanographic Engineer
Secondary Earth Science Teacher
Volcanologist

What are some desirable personal qualities?

- Adapt to different situations
- Work with a team
- Curiosity and an analytical mind
- Good problem-solving skills
- Love of the outdoors

Additional information

Experience acquired through internships or cooperative education can prove valuable in obtaining full-time employment after graduation.

While productive professional employment is attainable with a bachelor's degree, many employers require or recommend a graduate degree.

Who hires?

Private Sector

- Aerospace Firms/Airlines
- Colleges and Universities
- Engineering Consulting Firms
- Environmental Monitoring Firms
- Geotechnical Consulting Firms
- Hazardous Waste Cleanup Firms
- Mining Firms/Oil Companies
- Private Consultant Firms
- Radio Stations
- Scientific Instrumentation
Manufacturers
- Television Stations

Government Agencies

Bureau of Land Management/Mines

Colleges and Universities

Defense/Agriculture

Environmental Protection Agency

National Aeronautical and

Space Administration

National Forest Service/Science

National Oceanographic and

Atmospheric Administration

National Weather Service

State Environmental Monitoring and

US Geological Survey

State Geological Survey