



If you're *concerned* about environmental issues and the **future of life on Earth**, and if you want to learn about geologic hazards such as earthquakes, tsunamis, volcanoes, and climate change, then Geosciences is for you. The majors offered in the Department of Geosciences are aimed at those of you who are passionate about understanding the Earth's past and **securing its future**.

Career Opportunities

Geosciences will prepare you for a vast array of career opportunities. Our graduates are

- exploring for new energy resources
- researching ways to keep our waters and our soils clean
- developing public policies for government agencies
- searching for ancient life on Earth and other planets
- practicing environmental law and medicine
- training the next generation of Earth scientists through teaching at all levels



When I came to Penn State, I had no idea what I wanted to study. I experimented with a lot of different courses from biology to political science. As a recent graduate, I could not be happier with my choice of major and college. The College of Earth and Mineral Sciences is an excellent place to be with dedicated professors, hard-working staff, and arguably more available scholarship funds than any other college at Penn State. Geosciences has proven to be a discipline with limitless research opportunities on topics such as volcanoes, climate change, outer space, and everything in between.

—Lauren Herwehe

The Academic Program

Bachelor of Science, Geosciences

Our most popular degree offers a comprehensive background in geosciences with opportunities to participate in cutting-edge research and is suitable for students who wish to work in the environmental or oil and gas industries, in hydrogeology, or continue to graduate school.

Program requirements include courses in the following areas:

- Chemistry • Physics • Math • Geosciences

For the B.S. degree in Geosciences, a minimum of 121 credits is required.

Bachelor of Science, Geobiology

Growing in popularity and providing a blend of courses in geosciences and the biological sciences, this degree is ideal for students who wish to pursue graduate studies and careers in environmental geology, geochemistry, environmental microbiology, museum paleontology, and medicine.

Program requirements include courses in the following areas:

- Biology & Microbiology • Chemistry • Physics • Math • Geosciences

For the B.S. degree in Geobiology, a minimum of 121 credits is required.

Bachelor of Science, Earth Science and Policy

This newly developed degree program aims to create an exclusive cohort of professionals who combine a scientific understanding of natural Earth systems with a deep grasp of the social, economic, and political dimensions of environmental problems.

Program requirements include courses in the following areas:

- Chemistry • Geosciences • Political Sciences • Economics

For the B.S. degree in Earth Science and Policy, a minimum of 120 credits is required.

Bachelor of Science, Earth Sciences

This degree offers flexibility and breadth across the geosciences, geography, and meteorology, and is ideal for students who wish to pursue careers in environmental science, teaching, or environmental law.

Program requirements include courses in the following areas:

- Chemistry • Physics • Math • Geosciences

For the B.S. degree in Earth Sciences, a minimum of 123 credits is required.

An internship with an energy-related company is a possibility. Many companies recruit student interns as well as full-time employees from among our students.



Research and Fieldwork

Fieldwork is also an essential component of classes and research in geosciences. We require that most majors complete a six-week summer field camp in the Rocky Mountains or Italy.

Most of our programs require a senior thesis for graduation. The thesis is a yearlong research project in which students acquire advanced field and lab skills, as well as scientific writing skills and often present the results of their research at professional meetings or in scientific journals. Our students have done research on topics that range from the eruption of volcanoes in Iceland to the movement of glaciers in Antarctica to the remediation of acid mine drainage in Pennsylvania.

“The geoscience department at Penn State has filled me with passion to learn and discover what the broad field of geosciences has to offer. I have been prepared with foundational skills in both science and communication to pursue a professional career. Through department programs, my learning has been able to continue in field work across the globe, allowing me to gain a rich perspective of the discovery that is waiting to happen. I have a strong pride towards the department that has given me the tools to move forward in the geosciences!”
—Annie Tamalavage



Scholarships

The Department of Geosciences has many endowed scholarships that are awarded on the basis of academic achievement, merit, and need. In addition, a large portion of the cost of Field School is covered through departmental scholarships. Students are also eligible for numerous scholarships through the University and the College of Earth and Mineral Sciences.



For More Information:

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