GEOSCIENCES, MINOR

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

Program Description

The Geosciences minor provides a foundation in the physical and material aspects of the solid Earth, as well as an introduction to field techniques and technical writing. Advanced course work should reflect the students' individual interests. Areas of focus include, but are not limited to:

- Earth materials
- Evolution of the Earth and life
- Hydrogeology
- Environmental geology
- Natural hazards
- Plate tectonics
- Geophysics
- Climate change

What is Geosciences?

Geoscientists want to know more about the big picture of Earth and why it exists the way it does today. They investigate natural disasters such as earthquakes and volcanoes, they explore life in extreme environments such as hydrothermal vents or in far-removed caves, and they examine processes such as water treatment and carbon cycling. This work involves understanding how geology, chemistry, physics, and biology intersect, both today and throughout the Earth's history. Geoscientists piece together a picture of both Earth's past environments and life throughout time. This work can involve field work, laboratory work, or a combination. Ultimately, geoscientists seek to understand how our Earth developed into the way it is today, which can help us understand what we can expect in the Earth's future.

You Might Like This Program If...

- You are fascinated by volcanoes, earthquakes, rocks, glaciers, climate change, fossils, tectonic plates, or the evolution of life.
- You like big-picture thinking and want to explore Earth's developmental processes.
- You enjoy working in nature or in a laboratory (not all geosciences is outdoors!).
- You enjoy understanding how organisms and species existed in past ecosystems.
- You are analytical and like to piece together clues to paint a picture of past life.

Program Requirements

Requirement	Credits
Requirements for the Minor	18

Requirements for the Minor

The minor consists of 18 credits of course work, some of which are filled through specific courses as indicated below.

A grade of C or better is required for all courses in the minor, as specified by Senate Policy 59-10 (https://senate.psu.edu/students/policies-and-rules-for-undergraduate-students/59-00-minors-and-certificates/). In addition, at least six credits of the minor must be unique from the prescribed courses required by a student's major(s).

Code	Title	Credits
Prescribed Courses		
Prescribed Courses: Require a grade of C or better		
GEOSC 21	Earth and Life: Origin and Evolution	3
GEOSC 201	Earth Materials	4
Additional Courses		
Additional Courses: Require a grade of C or better		
GEOSC 1	Physical Geology	3
or GEOSC 20	Planet Earth	
or GEOSC 71		
GEOSC 470W	Introduction to Field Geology	3
or EMSC 470W	Undergraduate Collaborative Research in Earth and Materials Sciences	
Supporting Courses and Related Areas		
Supporting Courses and Related Areas: Require a grade of C or better		
Select 5 credits from a number of courses covering a variety of disciplines and fields of interest [1]		5

[1] Consult with your adviser. At least 3 credits in this category must be taken at the 400 level; the remaining 2 credits may be at the 200 level or above.

Academic Advising

The objectives of the university's academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee's unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (https://senate.psu.edu/students/policies-and-rules-for-undergraduate-students/32-00-advising-policy/)

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