

Do you enjoy being outdoors and exploring your Earth?

Are you interested in climate change ?

Do you want to know more about where we get our water?

Would you like to integrate the studies of the oceans, solid Earth and the Earth surface to examine how these systems sustain life on Earth?

**Would you like to make this your career?**

**CONTACT INFORMATION**

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# Bachelor of Science in Earth Science

*pathway for your **CAREER**  
in Earth Sciences*

explore  
**YOUR Earth!**

[earth.indiana.edu](http://earth.indiana.edu)

**here's how we can**

**help**



**EARTH AND ATMOSPHERIC SCIENCES**

Students choose among courses in geobiology, geochemistry, energy, environmental geology, hydrology, and geophysics to create an individualized pathway.

## the Bachelor of Science in Earth Science degree pathways are:

**EARTH MATERIALS** - Minerals, rocks, soil, and water are the materials of which the Earth and its natural resources are composed. You will learn what makes up these materials, how they are formed, and what they reveal about the Earth's structure and history.

**WATER RESOURCES** - The study of the water cycle. Examines the physical, chemical, and biological processes involving water as it cycles through the atmosphere and over and beneath the Earth's surface.

**EARTH HISTORY** - The history of Earth's continents, atmosphere, oceans, and life are important components of the Earth History pathway. You will learn how to reconstruct the movements of continents, the history of mineral-producing basins, and the evolution of life.

**GLOBAL ENVIRONMENT AND SUSTAINABILITY** - This field is an integrated study of our environment and its long-term sustainability involving such fields as ecology, biology, geochemistry, mineralogy, hydrology, and atmospheric science.

## required courses +

### EAS courses

#### EARTH MATERIALS

E406 Introduction to Geochemistry  
E416 Economic Geology  
E418 Igneous and Metamorphic Petrology  
E427 X-ray Mineralogy

E225 Earth Materials  
E226 Earth Processes  
E227 Earth Climate and History  
E314 Data Analysis  
X429 Field Geology in the Rocky Mountains

E451 Principles of Hydrogeology  
E333 Sedimentary and Tectonic Processes  
E415 Principles of Geomorphology  
E454 Fundamentals of Plate Tectonics

#### WATER RESOURCES

E118 Sustainability in Water Resources  
E351 Hydrology

E406 Geochemistry  
E444 Analytical Geochemistry  
E446 Hydrometeorology  
E451 Hydrogeology

#### EARTH HISTORY

E308 Paleontology and Geology of Indiana  
E340 Physical Meteorology, Climate, and Paleoclimate  
E411 Invertebrate Paleontology  
E412 Vertebrate Paleontology

#### GLOBAL + ENVIRONMENTAL SUSTAINABILITY

E131 Oceans and Our Global Environment  
E171 Environmental Geology  
E341 Natural History of Coral Reefs

E415 Geomorphology  
E451 Hydrogeology  
E490 Environmental and Energy Diplomacy

energy consulting  
environmental engineering  
environmental consulting  
environmental law  
hydrology/water resources  
park services and conservation  
geoarchaeology

## to prepare for your career in

paleontology  
museum curation  
military engineering  
mining, oil and gas  
engineering geology  
construction firms  
state agencies (DNR, Geological Surveys)  
federal agencies (NASA, USGS, DOE)  
highway department  
department of natural resources  
state geological surveys  
geology/environmental education  
science writing/journalism

## questions?

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scan to see all the degree requirements in the 2023-24 course bulletin

earth.indiana.edu

