

Bachelor of Arts in Earth and Atmospheric Sciences

a flexible degree for your **CAREER** in Earth and Atmospheric Sciences



The degree is extremely flexible, giving students the opportunity to design their own degree within Earth and Atmospheric Sciences. Students can also easily add a double major in EAS to another field in the College.

Bachelor of Arts in Earth and Atmospheric Science

EARTH SCIENCES – You will learn what makes up minerals, rocks, soil, and water, how they are formed, and what they reveal about the Earth's structure and history.

EARTH HISTORY — You will learn how to reconstruct the movements of continents, the history of mineral-producing basins, and the evolution of life.

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.

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.

ATMOSPHERIC SCIENCES – Learn how weather systems develop and move, how to make weather forecasts, and prepare yourself for work in government or in private industry.

CLIMATE CHANGE – Learn how past, current, and future climate impact the Earth's systems.

Career example: former students have double-majored in political science and EAS with the goal of working in climate policy.

1 COURSE AT 100-LEVEL

E103 Earth Science: Materials and Process

E104 Evolution of the Earth

E105 Earth: Our Habitable Planet

E111 Journey to the Center of the Earth

E116 Our Planet and Its Future

E118 Sustainability in Water Resources

E122 Introduction to Atmospheric Science

E131 Oceans and Our Global Environment

E144 Extreme Weather and Its Impact

E171 Environmental Geology

2 COURSES AT 300-LEVEL

A315 Climate Engineering

A332 Atmospheric Thermodynamics and Cloud Processes

A339 Weather Analysis and Forecasting

A340 Physical Meteorology and Climatology

A347 Instrumentation for Atmospheric Sciences

A364 Dynamic Meteorology I

E308 Paleontology and Geology of Indiana

E314 Data Analysis in Earth Science

E328 Energy, Resources, and the Environment

E333 Sedimentary and Tectonic Processes

E341 Natural History of Coral Reefs

E351 Elements of Hydrology

X377 Field Geology and Paleoanthropology at Olduvai Gorge

2 COURSES AT 200-LEVEL

requirements

E225 Earth Materials

E226 Earth Processes

E227 Earth Climate and History

E271 Introduction to Environmental Field Methods

course

2 COURSES AT 400-LEVEL

A437 Synoptic Meteorology

A434 Dynamic Meteorology

A456 Wind Power Meteorology

A476 Climate Change Science

E406 Introduction to Geochemistry

E411 Invertebrate Paleontology

E415 Principles of Geomorphology

E416 Economic Geology

E418 Igneous and Metamorphic Petrology

E444 Analytical Geochemistry

E448 Sustainable Energy Systems

E451 Principles of Hydrogeology

E454 Fundamentals of Plate Tectonics

E488 Paleoclimatology: A Geological Record of Earth's Climate History

E490 Environmental and Energy Diplomacy

X428 Field Geology: Montana and Wyoming

X429 Field Geology in the Rocky
Mountains

ADDITIONAL REQUIREMENTS:

2 non-EAS courses that carry N&M credit

a BA in EAS can prepare you for your career in

energy consulting

environmental law

geoarchaeology

<u>pal</u>eontology

museum curation

environmental engineering

hydrology/water resources

broadcast meteorology

park services and conservation

aviation and military meteorology

environmental consulting

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/environmetal education
science writing/journalism

questions?

Director of Undergraduate Studies:

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

earth.indiana.edu

