A GUIDE FOR WHAT'S NEXT

Earth and Climate Sciences

Learning Goals

1. Build a comprehensive understanding of the Earth system, including interconnected components.
2. Measure, understand, quantify, and model rates of change across geologic time, including how anthropogenic activity is altering these rates.
3. Critically examine scientific literature and data. Use intellectual resourcefulness to advance projects that deepen our understanding of complex systems.
4. Examine Earth system problems integrating ideas and approaches from multiple scientific and allied fields in pursuit of solutions.
5. Conduct collaborative research founded in observation and enhanced by suitable analytical and modeling techniques.
6. Communicate clearly using oral, written, and graphical approaches accessible to a wide variety of audiences, and appropriately assess and communicate uncertainty.
7. Understand, respect, and communicate with diverse stakeholders the fundamental importance of geoscience in society.

Middlebury College
Center for Careers and Internships

About the major

The Earth and Climate Sciences curriculum focuses on geological and environmental sciences in interesting, dynamic, and fun settings in the Green Mountains and Adirondacks, on Lake Champlain, and beyond. Students are encouraged to develop skills for obtaining and interpreting observational data. The senior thesis is the culmination of an earth and climate sciences major at Middlebury.

The curriculum takes advantage of our natural setting by stressing filed-oriented and laboratory-supported inquiry into problems in all facets of earth and climate science. Since Vermont is a classic area for the study of mountain system evolution, one general theme of the program is to relate geological process to the origin and evolution of global tectonic patterns, integrating data from the world's oceans and continental areas.

> "The earth and climate science major set me on a clear path toward a career focused on dealing with complex environmental problems."
>
> —Andrew L. Nichols '01
> *Research Geomorphologist,*
> *UC Davis Center for Watershed Sciences*

Earth and Climate Science majors have used their Middlebury degree as a stepping-stone to graduate school in geosciences; to industry; to teaching careers; and to careers in environmental science, business, law, and architecture.

Reasons you might choose this major

- You are interested in major global concerns such as access to resources, energy, and global warming, and seek to approach these issues from a geological lens to see how they might be mitigated.
- You are interested in the history and future of the Earth and the processes affecting it.
- You are intrigued by how the planet has been shaped and how it continues to evolve.
- You are fascinated by landscape variations and by natural phenomena and seek to learn more about how they function.
- You are ready to spend a portion of your learning time in the field, and the idea of laboratory work excites you.
- You are ready to learn how to work with timescales of immense proportion, and how such timescales don't always allow for immediate results.

Translating Learning into Professional Competencies

Throughout your time at Middlebury, you will develop and enhance the following core professional competencies, skills, and dispositions highly valued by employers that will prepare you for leadership and success in any given field:

Critical Thinking: Exercise sound reasoning to analyze issues, make decisions, and overcome problems.

Oral/Written Communications: Articulate thoughts and ideas clearly and effectively in written and oral forms.

Teamwork/Collaboration: Build collaborative relationships with colleagues and customers from diverse backgrounds.

Leadership: Leverage the strengths of others to achieve common goals, and use interpersonal skills to coach and develop others.

Professionalism/Work Ethic: Demonstrate personal accountability and effective work habits.

Global/Intercultural Fluency: Value, respect, and learn from diverse cultures, races, ages, genders, sexual orientations, and religions.

Digital Technology: Leverage existing digital technologies ethically and efficiently to solve problems, complete tasks, and accomplish goals.

Career Management: Identify and articulate one's skills, strengths, knowledge, and experiences relevant to career goals, and identify areas necessary for professional development.

Where earth and science majors go

Applying your learning through internships . . .

Students pursue internships and research in a variety of fields, enabling them to apply their liberal arts learning in real-world settings. Internships, research, and self-directed projects enrich your academic experience and help prepare you for life after Middlebury. Students have interned or done research at the following:

National Institute for Environmental Studies

National Oceanic and Atmospheric Administration

Tarfala Research Station

Matho Museum Project

NASA-Jet Propulsion Laboratory

The Field Museum

Massachusetts Natural Heritage and Endangered Species Program

Alaska Volcano Conservatory

EuroConsult, Inc.

Bank of America Merrill Lynch

Tradition Energy

Columbia University

Juneau Icefield Research Program

Raptor Conservancy of Virginia

University of California Natural Reserve System

National Institutes of Health

Georgia Institute of Technology

Bay Area Wilderness Training

U.S. Geological Survey

The Human Rights Campaign

Undergraduate Summer Research at Middlebury

. . . leading to meaningful, dynamic, and engaging career paths.

See just some of the many interesting ways our graduates have applied their liberal arts learning to engage the world. If you want to see what other Middlebury alumni are doing now, log into Midd2Midd and search by major. **go/midd2midd**

Center for Energy & Environment Policy, *Senior Research Analyst*

U.S. Geological Survey, *Glaciologist*

Maineland Consultants, *Environmental Consultant*

NH Land & Community Heritage Investment Program, *Executive Director*

Maine Dept. of Environmental Protection, *Senior Geologist*

Marmot Mountain Inc., *Vice President, Product Development*

New Scientist, *Boston Bureau Chief*

Haley & Aldrich Inc., *Director, Environmental Due Diligence Services*

Geomarine Technology, *Marine Geologist*

Charles Stick Inc., *Landscape Architect*

EP Oil & Gas, *Director*

Global Post, *Editor*

NMC Environmental Group, *Senior Regulatory Specialist*

OSO Energy Resources Corp., *President*

The Smithsonian Institution, *Planetary Geologist*

Chicago Express Airlines, *Captain*

Health New England, *President and CEO*

Naval Research Laboratory, *Research Physicist*

National Renewable Energy Laboratory, *GIS Scientist*

U.S. Department of State, *Water and Power Advisor*

U.S. Environmental Protection Agency, *Attorney-Advisor, Office of General Counsel*