

Earth Sciences

Bachelor of Arts Degree
Bachelor of Science Degree

Contact

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Admission Requirements

(In years as established by the college)

A high school diploma with the following specific courses:

- 4 English
- 2 Algebra I & II
- 1 Geometry
- 3 Lab Science
- 2 History/Social Studies
- 2 Foreign Language (same language or two years of American Sign Language)

For B.A. degree:

- 1 Computer Science
- 1 Fine Arts
- Academic electives (to equal at least 17 total credits)

To ensure current mathematical skills, students should take a mathematics course during their senior year of high school.

Did You Know?

- Students have the opportunity to learn from professors who are actively participating in research in a specific field, rather than learning from faculty in smaller departments who must cover a range of courses with a general topic of study.
- Students have the opportunity to participate in nationally and internationally funded research projects and to work alongside faculty members and graduate students. Undergraduates have presented the results of their research at regional and national meetings.

College of Natural Sciences, Forestry, and Agriculture

Program Description

The Department of Earth Sciences has been recognized by the National Science Foundation as one of the top 100 geoscience departments in the country. Our newly designed curriculum gives students a solid foundation in the earth sciences through required core courses, but also allows the flexibility to explore a range of elective topics or use electives to focus on a particular subdiscipline within the earth sciences. Many traditional departments require students to complete a more narrowly defined and often hard rock-focused set of requirements. Our curriculum consists of a broad range of topics, including climate change, energy, tectonics, Earth materials and surface processes.

Specialized Information

Our active department provides opportunities for undergraduates to participate in ongoing research projects with faculty and graduate students. Work-study and research funds are available. Several faculty are members of the internationally recognized Climate Change Institute at UMaine. This affords our students additional academic and research opportunities.

Undergraduate students who participate in research expand their education well beyond their academic studies. They gain insights that will aid in their understanding of Earth sciences as well as experiences valuable in a work setting or continued studies in graduate school. Research facilities include spacious introductory and environmental geology labs, the Sedimentology Laboratory, Electron Microprobe, Scanning Electron Microscope, X-ray Diffraction, Analog Modeling Laboratory, Geodynamics Laboratory, Petrology Laboratory, Rock and Mineral Prep Laboratory, and Stable Isotope Laboratory.

The department offers a computer cluster for Earth science students, a student lounge and study area, and wireless access in the Bryand Global Science Center.

Associated Honor Societies and Student Organizations

Students are encouraged to join the Geology Club. They also have opportunities to attend such annual professional conferences as the Geological Association of America, Geological Society of Maine and New England Intercollegiate Geological Congress. Students participate in such travel experiences as a geological field camp. Research projects have included collecting samples from the Greenland ice sheet, conducting geophysical research on Alaskan glaciers, participating in field and lab research of coastal salt marshes in Maine, and mapping a sample collection in southeastern Ontario, Canada.

Career and Graduate Opportunities

Students completing a bachelor's degree from the Department of Earth Sciences may work in technical positions in business or government agencies or may continue their education in graduate school. Graduate students pursue a wide range of Earth science topics, including tectonics, mineralogy, sea level change and glacial geology. Earth science graduate students also may choose to work with members of the Climate Change Institute or the Center for Science and Mathematics Education Research.

Representative Courses

ERS 101 Introduction to Geology
ERS 102 Environmental Geology of Maine
ERS 200 Earth Systems
ERS 201 Global Environmental Change
ERS 315 Principles of Sedimentology and Stratigraphy

ERS 316 Structural Geology
ERS 317 Introduction to Geophysics
ERS 330 Mineralogy
ERS 499 Summer Field Camp

UMaine Graduate Programs

Master of Science in Earth Sciences
Doctor of Philosophy in Earth Sciences

About UMaine

The University of Maine, founded in Orono in 1865, is the state's premier public university. It is among the most comprehensive higher education institutions in the Northeast and attracts students from across the U.S. and more than 60 countries. It currently enrolls 12,000 total undergraduate and graduate students who can directly participate in groundbreaking research working with world-class scholars. Students are offered 88 bachelor's degree programs, 64 master's degree programs, 25 doctoral programs and one of the oldest and most prestigious honors programs in the U.S. The university promotes environmental stewardship on its campus, with substantial efforts aimed at conserving energy, recycling and adhering to green building standards in new construction. For more information about UMaine, go online (umaine.edu). Equal opportunity information also is available online (umaine.edu/eo).

How do I apply?

Visit go.umaine.edu for an application, as well as information about academics and life at UMaine.



Academic Programs 2011–12

The latest versions of the UMaine fact sheets are online (factsheets.umaine.edu). This fact sheet is intended for informational purposes only and is subject to change.

