Earth Sciences

The department offers a Bachelor of Science in Earth Sciences degree which may be earned in any one of five options (Geography, Geographic Information Science/Planning, Geology, Paleontology, and Snow science). Each option tabulated below requires courses from within the Department of Earth Sciences and courses outside the department. Some of the courses fulfill both departmental requirements and University Core Curriculum requirements. Academic minors are offered in Spatial Analysis/Geographic Information Science/Planning, Geology, Paleontology, and Snow science.

Departmental Honors in Earth Sciences

The Department of Earth Sciences awards Departmental Honors at graduation to students who demonstrate exceptional undergraduate performance through the following criteria:

1. a minimum 3.5 grade-point average (GPA) in the major;
2. a minimum 3.0 GPA overall;
3. completion of at least 4 credits of undergraduate research with a grade of ‘B’ or better; and
4. completion of a Senior Thesis (ERTH 490R)—written, bound, and orally presented and defended by the last day of classes prior to graduation.

Undergraduate Minors

- Earth Science Teaching (http://catalog.montana.edu/undergraduate/education-health-human-development/department-education/teaching-minors/earth-science-minor/)
- GIS Minor (Non-Teaching) (http://catalog.montana.edu/undergraduate/letters-science/earth-sciences/geographic-information-science-gis-minor-nonteaching/)
- Water Resources Minor (Non-Teaching) (http://catalog.montana.edu/undergraduate/letters-science/earth-sciences/water-resources-minor-nonteaching/)

Earth Sciences offers M.S. and Ph.D. degrees in Earth Sciences (Geography, Geology, and Geobiology content areas). We stress independent thesis research with some supporting course work. Our expertise spans most of the subfields of Earth Sciences. Our Geography faculty includes specialties including historical and cultural geography, settlement geography, resource geography (energy and water), economic geography, planning, bioclimatology, applications of GIS and snow science. The interests of our Geology faculty include composition and structure of the crust, quantitative geomorphology, sedimentation and stratigraphy. Our Geobiology faculty have research interests in vertebrate paleontology, paleoecology, biogeography, paleoclimatology, and geomicrobiology. Our program strengths are in basin analysis and energy resources, dinosaur paleontology, geography of the northern Rocky Mountains, architecture and composition of the lithosphere, snow science and cryospheric processes, and climate change.

Degree Offered

- M.S. in Earth Sciences (http://catalog.montana.edu/graduate/letters-science/earth-sciences/ms-earth-sciences/)
- M.S. in Land Rehabilitation (http://catalog.montana.edu/graduate/agriculture/land-resources-environmental-sciences/ms-land-rehabilitation/) (Interdisciplinary degree)
- Ph.D. in Earth Sciences (http://catalog.montana.edu/graduate/letters-science/earth-sciences/phd-earth-sciences/)

Undergraduate Programs

- Geography Option (http://catalog.montana.edu/undergraduate/letters-science/earth-sciences/geography-option/)
- Geology Option (http://catalog.montana.edu/undergraduate/letters-science/earth-sciences/geology-option/)
- GIS/Planning Option (http://catalog.montana.edu/undergraduate/letters-science/earth-sciences/gisplanning-option/)
- Paleontology Option (http://catalog.montana.edu/undergraduate/letters-science/earth-sciences/paleontology-option/)
- Snow Science Option (http://catalog.montana.edu/undergraduate/letters-science/earth-sciences/snow-science-option/)