

Geology

Departments
and Programs
in the College
of Science

Biochemistry &
Biophysics

Biology

Botany & Plant
Pathology

Chemistry

Environmental
Sciences

Geosciences

Mathematics

Microbiology

Molecular &
Cellular Biology*

Physics

Pre-professional
Programs in the
Health Sciences

Professional
Science Masters*

Science &
Mathematics
Education*

Statistics*

Zoology

*graduate program only

...the earth and its resources. Have you ever wondered about our planet Earth? Geology is the science that increases our understanding of the earth—its composition, internal structure, and history. The earth is literally the geologist's laboratory. Geologists study rocks, climate, mountain ranges, minerals, and the processes by which they were formed over the earth's 4.6 billion-year history. They learn to recognize signs of valuable ores and fuels, but they are also concerned with human impact on the environment. Building on unstable slopes, constructing dams on rivers and jetties on coastlines, as well as the contamination of water supplies are important problems investigated by geologists.

Career Opportunities

The job market for geologists is closely related to concerns for the environment and to world prices for oil, gas, and metals. Geologists are employed by petroleum, mining, construction, cement, ceramic, and chemical companies, and by major engineering consulting firms. Most employment is through environmental consulting firms but state and federal agencies, such as the U.S. Geological Survey, the U.S. Forest Service, the Bureau of Mines, the Department of Geology and Mineral Industries, and the Corps of Engineers, as well as most states and many large cities, also hire geologists. A master's degree is required for most professional positions.

Some OSU graduates are employed as:

Geologists for environmental consulting firms

Geotech engineering technicians

Geologists in mineral exploration

Petroleum geologists

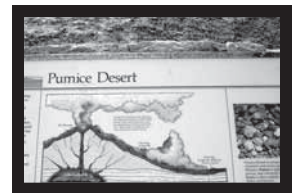
Teachers and researchers at universities

Geologists in federal and state geological surveys

The geology program in the Department of Geosciences at OSU grants undergraduate and graduate degrees. Majors have access to a dedicated faculty with a variety of skills and interests. Faculty research projects include understanding past climate from gases trapped in Antarctic ice, studying mineral deposits in Montana and Nevada; understanding how rivers move through time; investigating the structure and origin of the mountain ranges; and tracing the eruptive history of volcanoes in the western United States.

Students are exposed to the geologist's real world in many ways. They take field trips sponsored by faculty and by the student-directed Geosciences Club, and they hear from geologists across the country who make scheduled appearances on campus. Geology students enrich their academic experience by attending the OSU Geology Field Camp in the Ochoco Mountains of central Oregon.

The geology program is housed in Wilkinson Hall, a well-equipped building for the earth sciences. Laboratories allow students to examine rock, ice, and water samples in detail using a variety of instruments.



Geology

What to know about Oregon State University

Head Advisor

College of Science

128 Kidder Hall

541-737-4811

OSU Admissions

104 Kerr Administration

541-737-4411

800-291-4192

OSU Financial Aid

Student Employment

Loans & Scholarships

College Work Study

218 Kerr Administration

541-737-2241

OSU Registrar

102 Kerr Administration

541-737-4331

OSU Housing

102 Buxton Hall

541-737-4771

OSU Website

<http://oregonstate.edu>

For more information, please contact:

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Geology Program

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Course of Study

Students begin the freshman year with a year-long sequence in basic geology, in addition to chemistry and mathematics. The sophomore year includes additional courses in geology, and physics.

During the last two years, students take upper division courses in geology, the summer geology field camp, and, depending on their specific goals, several electives in advanced geology and other areas of interest. Requirements for graduation include 48 credits needed for the baccalaureate core (BC), consisting of writing/communication (9 cr.), mathematics (3 cr.), fitness (3 cr.), physical and biological sciences (12 cr.), western culture/cultural diversity/literature & arts/social processes/difference, power, and discrimination (15 cr.), and contemporary global issues/science, technology and society (6 cr.).

Sample Curriculum (B.S. degree)

An official graduation checklist may be obtained from an advisor.

Freshman and Sophomore Years		credits
Physical Geology	GEO 201	4
Earth System Science	GEO 202	4
Evolution of Planet Earth	GEO 203	4
Mathematics (through at least Calculus)	MTH 252	12
5 terms of chemistry and physics from:	CH 121, 122, 123, or CH 221, 222, 223, PH 211, 212, 213 recommended or PH 201, 202, 203	22–25
BC: Writing I	WR 121	3
BC: Writing II		3
BC: Writing III		3
BC: Fitness		3
Biological science with lab courses	BI 211 recommended	4
Sophomore and Junior Years		credits
Earth Materials I: Mineralogy	GEO 310	4
Earth Materials II: Petrology	GEO 315	4
Earth Materials III: Igneous Petrography	GEO 415	4
BC: Perspectives		15
BC: Science, technology, and society		3
BC: Contemporary global issues course		3
Computer intensive course (met by)	GEO 340, GEO 430, GEO 463	3–4
Map & Image Interpretation	GEO 301	4
Junior and Senior Years		credits
Surface Process	GEO 322	4
Structural Geology	GEO 340	4
Geochemistry	GEO 430	3
Geophysics and Tectonics	GEO 463	4
Stratigraphy and Sedimentology	GEO 470	4
Contemporary Earth Science Issues	GEO 409	3
Field Geology	GEO 495	9
400-level or higher Geoscience electives		9

Experience.
Explore.
Discover
Achieve.

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