

GEOLOGY

The study of geology includes natural hazards, the processes responsible for Earth's internal structure and external landforms, Earth resources, a geologic perspective on Earth's dynamic climate, and geologic time. Geology explains why a landscape looks the way it does and shows that Earth is dynamic and changes both gradually and catastrophically. Understanding these changes provides opportunity to prepare for them and to design a resilient society.

Geology is unique among the sciences in that it uses concepts and laws from other fields to understand the complexities of the real world. Textbooks provide foundational information but cannot capture geologic landscapes' intricate puzzles. This means students must explore the outstanding geology in our backyard via field trips. Furthermore, the study of the Earth and how humans interact it with it leads to a deeper understanding of Sustainability, so every class in the Geology majors sequence (G201-202-203) has a Sustainability focus.

A bachelor's degree in geology prepares students for entry-level geoscience jobs and graduate school. For most geoscience careers, a Master of Science is considered the professional degree, while a doctorate is typically only necessary for research and higher education jobs. Fortunately, a master's or doctorate degree is almost always funded, meaning students get paid a living stipend and receive a tuition waiver and therefore do not have to take student loans.

See the [Geology page](#) for program and contact information.

Programs

Transfer

Associate of Arts Oregon Transfer

- [Geology - Associate of Arts Oregon Transfer \(AAOT\)](#)

Geology

G 147 Violent Earth (3 Credits)

Covers geoscience basics with a focus on historical geology and catastrophic events, including formation of the moon, volcanoes, earthquakes, megafloods, mass extinctions, asteroid impacts, and life itself. Intended for non-science majors.

G 161 Field Geology: Study of Landscape Evolution (3 Credits)

Introduces students to the processes by which landscapes evolve in a field based setting. Learn how to observe the landscape using methods from field sciences such as geology and ecology, and then apply ideas from these sciences to interpret how landscapes change. The course will take place primarily outdoors, including hiking to field sites and camping for an extended period of time.

G 162CV Field Geology: Cascade Volcanoes (4 Credits)

Explores Central Oregon's spectacular volcanic landscape. Meets for lecture followed by all-day field trip to volcanic sites in Central Oregon. Appropriate for non-majors.

G 163 Field Geology: Rivers, Lakes and Springs of Central Oregon (4 Credits)

Exploration of the water bodies and hydrologic cycle of Central Oregon, with emphasis on how water is used by humans. Meets for lecture followed by all-day field trip to sites in Central Oregon. Appropriate for non-majors.

G 169 Field Geology: Exploration of the Pacific Northwest (1 Credit)

Explores locations of geologic interest throughout the Pacific Northwest. Meets for a multi-day overnight field trip to a selected location within a day's drive. Appropriate for non-majors. Repeatable for credit. P/NP grading.

G 199 Selected Topics: Geology (1-6 Credits)

This course is in development.

G 201 Geology I - The Dynamic Earth (4 Credits)

Examines the dynamic Earth through the lens of plate tectonics. Uses a geologic perspective to consider how humans and the geologic world impact each other. First course in sequence. Appropriate for non-majors.

G 202 Geology II - Earth's Surface (4 Credits)

Recommended preparation: G 201.

Examines Earth's dynamic landscapes through the lens of surface processes. Uses a geologic perspective to consider how humans and the geologic world impact each other. Second course in sequence.

G 203 Geology III - Earth History (4 Credits)

Recommended preparation: G202.

Examines Earth's history from an Earth's systems perspective including the geosphere, biosphere, hydrosphere, and atmosphere. Considers how humans and the geologic world impact each other. Third course in sequence.

G 298 Independent Study: Geology (1-6 Credits)

Prerequisites: instructor approval.

Recommended preparation: prior coursework in the discipline.

Individualized, advanced study to focus on outcomes not addressed in existing courses or of special interest to a student. P/NP grading.

G 299 Selected Topics: Geology (1-6 Credits)

Selected Topics in Geology.

GS 106 Physical Science: Geology (4 Credits)

Recommended preparation: MTH 060 or minimum placement Math Level 10.

Introduces students to the study of the ever-changing Earth, with a focus on hands-on exploration. Designed for students with limited geology background. Field trips will occasionally substitute for labs.