

G 201 : GEOLOGY I - THE DYNAMIC EARTH

Transcript title

Geology I

Credits

4

Grading mode

Standard letter grades

Total contact hours

60

Lecture hours

30

Lab hours

30

Course Description

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.

Course learning outcomes

1. Explain the foundational theories of geology and the evidence used to construct them.
2. Recognize the skills of scientific thinking such as making observations and interpretations and testing hypotheses.
3. Assess risk posed by geologic hazards to society.
4. Sustainability outcome: Explain the interconnectedness of environmental, social, and economic systems in the context of geology.
5. Sustainability outcome: Analyze the major environmental, social, and economic challenges and potential solutions of our time using a systems thinking approach.

Content outline

- The scientific process (how scientific knowledge is created)
- Plate tectonics
- Earthquakes
- Volcanism
- Geo-hazards associated with the Cascadia subduction zone, including earthquakes, tsunamis, and volcanoes
- Earth resources, including rocks, minerals, and fossil fuels
- Earth systems and climate change

Required materials

Field trips often substitute for labs, with options to ensure accessibility for every student. Transportation will be provided.

General education/Related instruction lists

- Science Lab