

G 203 : GEOLOGY III - EARTH HISTORY

Transcript title

Geology III

Credits

4

Grading mode

Standard letter grades

Total contact hours

60

Lecture hours

30

Lab hours

30

Recommended preparation

G202.

Course Description

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.

Course learning outcomes

1. Explain the foundational theories of geology and the evidence used to construct them.
2. Construct geologic histories using scientific thinking, such as making observations and interpretations and testing hypotheses.
3. Assess risks to human society by changes in Earth's systems, such as a changing climate.
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)
- Geologic time, relative dating, absolute dating
- Stratigraphy and sedimentary environments
- Fossils and the fossil record
- Paleogeography and plate tectonics
- Origin of Earth, life, and evolution
- Mass extinctions
- Earth systems history of Central Oregon
- Human change and the Anthropocene

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