

G 202 : GEOLOGY II - EARTH'S SURFACE

Transcript title

Geology II

Credits

4

Grade mode

Standard letter grades

Contact hours total

60

Lecture hours

30

Lab hours

30

Recommended preparation

G 201.

Description

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.

Learning outcomes

1. Explain the foundational theories of geology and the evidence used to construct them.
2. Apply the skills of scientific thinking such as making observations and interpretations and testing hypotheses.
3. Evaluate the role of humans in the process of landscape evolution.
4. Explain the interconnectedness of environmental, social, and economic systems in the context of geology.
5. 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)
- Earth systems and the hydrologic cycle
- Surface processes and landscape evolution
- Isostasy and mountain-building
- Mass wasting (landslides)
- Fluvial environments (rivers)
- Glacial environments (glaciers)
- Sediment transport via landslides, rivers, glaciers, and human activities
- Climate change

Required materials

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

Grading methods

Grades will be determined by exams, homework, lab completion, and field trip participation.

General education/Related instruction lists

- Science Lab