

G 147 : VIOLENT EARTH

Transcript title

Violent Earth

Credits

3

Grading mode

Standard letter grades

Total contact hours

30

Lecture hours

30

Course Description

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.

Course learning outcomes

1. Identify common minerals, rocks, and fossils.
2. Describe the divisions of geologic time and historical events within.
3. Compare and contrast uniformitarian earth processes with catastrophic earth processes.
4. Describe the nine big ideas of earth science literacy.

Content outline

1. Intro to geology: chemistry, minerals, rocks; geologic time and plate tectonics
2. Continental rifting, continental collision, supercontinents
3. Formation of universe/solar system, differentiation of Earth, Earth's atmosphere
4. Milankovitch cycles and glaciation
5. Megafloods and asteroid impacts
6. Melting and volcanic processes, volcanoes, supervolcanoes
7. Flood basalt provinces
8. Earthquakes, tsunami, and megaquakes
9. Mass extinctions and fossils
10. Catastrophes in review, the Anthropocene

Required materials

No materials required.

General education/Related instruction lists

- Science not Lab