

G 208 : Volcanoes and Their Activity

Covers the origin, activity, products, classification, and hazards of volcanoes.

Volcanoes and Their Activity (G208) is a one-term introductory course in volcanology, which is a branch of the science of geology. The student will develop an understanding of the types, origin, activity, products, and hazards of volcanoes. This course can be used to partly fulfill graduation requirements for the Associate Degree, and has been approved for block transfer. The text and materials have been chosen by the faculty and the emphasis of the course will be the viewpoint of the author(s). This includes the geologic time scale and the evolution of the Earth.

Credits 3

Prerequisites

Equivalent placement test scores also accepted.

Subject

Geology

Course Outcomes

Upon completion of the course students should be able to:

- Use an understanding of rock and mineral characterization and classification to infer the igneous processes which formed individual rock and mineral specimens.
- Analyze the development, scope, and limitations of plate tectonics, and utilize plate tectonics to explain the Earth's volcanic activity, and the relationship of this activity to climate change, agriculture, and formation of economic deposits.
- Access volcano science information from a variety of sources, evaluate the quality of this information, and compare this information with current models of volcanic processes, identifying areas of congruence and discrepancy.
- Make field and laboratory-based observations and measurements of volcanic rocks and minerals and/or volcanic landforms, use scientific reasoning to interpret these observations and measurements, and compare the results with current models of volcanic processes identifying areas of congruence and discrepancy.
- Use scientifically valid modes of inquiry, individually and collaboratively, to critically evaluate the hazards and risks posed by volcanoes both to themselves and society as a whole, evaluate the efficacy of possible ethically robust responses to these risks, and effectively communicate the results of this analysis to their peers.
- Assess the contributions of volcanology to our evolving understanding of global change and sustainability while placing the development of volcanology in its historical and cultural context.