

GEOLOGY (GE)

GE-114 Foundations of Earth Science (4 credits)

This course includes labs, discussion, and field trips. The student works with earth (and space) systems and concepts that are observable in our everyday world. In the astronomy unit, students research the forces that create and continue to change our solar system, galaxy, and universe and the interrelationships among these systems. Students learn about weather and climate in the meteorology section, focusing on the processes that create the weather systems we experience, and learning to make predictions based on observed patterns. In the geology unit, students study aspects of geology, including the materials and landforms we see all around us, and the dynamic processes that shape and change the earth. Students also evaluate effects of human activities on the earth's systems.

Prerequisite(s): QL 051/120/122

GE-115 Introduction to Geologic Principles (2 credits)

This half-semester course runs concurrently with SC-114 GE 117, Foundations of Earth Science, and covers the geology portion of that course. This course includes labs, discussion, and field trips. The student works with earth systems and concepts that are observable in our everyday world, including the materials and landforms we see all around us, and the dynamic processes that shape and change the earth. Students also evaluate effects of human activities on the earth's systems. The student learns about and practices how science is done, making observations and using them to draw reasonable conclusions. Major themes include earth materials, the earth's structure and composition, energy and earth systems, water and the hydrologic cycle, land-forming processes, and plate tectonics. If both GE-115 and GE-116 are completed successfully, they will count as the equivalent of GE 117/SC-114 (gen ed lab science).

Prerequisite(s): This alone does not fulfill the General Education Lab Science requirement, but combined with GE-116 it does. Spring 2023: Field trip dates are Saturday, April 22 and Saturday, May 6.

GE-116 Introduction to Atmospheric & Space Science Principles (2 credits)

This half-semester course runs concurrently with GE 117, Foundations of Earth Science, and covers the astronomy and meteorology portions of that course. The course includes laboratory and discussion activities. In the astronomy unit, students research the forces that create and continue to change our solar system, galaxy, and universe and the interrelationships among these systems. Students learn about weather and climate in the meteorology section, focusing on the processes that create the weather systems we experience, and learning to make predictions based on observed patterns. The student learns about and practices how science is done, making observations and using them to draw reasonable conclusions. If both GE-115 and GE-116 are completed successfully, they will count as the equivalent of GE 117 (gen ed lab science). Spring 2023: Field trip dates are Saturday, April 22 and Saturday, May 6.

Prerequisite(s): QL 110 QL 120 or QL-122

GE-220 Earth Science (4 credits)

This course includes labs discussion, and field trips. The student focuses on an analysis of selected earth and space systems and concepts. Students study aspects of geology (materials and landforms of the earth's crust and dynamic processes that change and shape the crust), meteorology (weather and climate), and space and planetary science. Students investigate forces forming and driving these systems and the interrelationships among these systems. Students also evaluate effects of human activities on the earth's systems. GE-220 students also complete an independent project or experiment with an associated paper and/or presentation. Spring 2023: Field trip dates are Saturday, April 22 and Saturday, May 6.

Prerequisite(s): SC-119 or ED LIC, CM 156Q

GE-410 Environmental Geology (4 credits)

The student uses geologic information and frameworks along with economic, political, and cultural information and frameworks to address issues related to land and resource use and sustainability, and analyze resources and natural geologic hazards. Students use remote sensing and geographic information systems along with geologic and topographic maps to interpret, analyze, and communicate information and to evaluate geologic and environmental hazards. Students identify underlying assumptions and bias in data, evaluate risks, and propose reasonable actions as an effective citizen. Guest experts and field trips to local environmental and geologic points of interest may be included.

Prerequisite(s): One SC or MT course (of any kind) required.

GE-497 Independent Study (1-3 credits)

Under the approval and direction of a faculty member, independent study is available to students.