Department:

Geology

Course Description:

This course provides an introduction to the basic principles of geology. The course covers geological measuring techniques, minerals and rocks, internal processes such as plate tectonics, earthquakes, and volcanoes, and surface processes such as streams, coasts, mass movements, and glaciers. The course is intended as a broad-based introduction to geology for students who are not majoring in science.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Classify and describe the chemical makeup of important minerals and rocks.
2. Identify and define important geologic features and explain the general processes which formed them.
3. Explain the differences between internal and surficial geologic processes and explain how these processes act to shape the Earth.
4. Describe how relative and absolute dating techniques are used to develop a geologic history of the Earth.
5. Explain how Plate Tectonic Theory is a unifying theory that accounts for many seemingly unrelated geological phenomena.
6. Describe some of the important measuring techniques that geologists use in the field and in the laboratory.
7. Describe the various roles geologists have in society.
8. Obtain, analyze, and interpret data from geological experiments.
9. Summarize and provide written reports on the results of geological experiments.

Course Content:

A. Minerals
   1. Atoms and elements
   2. Mineral structure and composition
   3. Physical properties of minerals
B. Rocks and the Rock Cycle
   1. Volcanism and igneous rocks
   2. Sediment and sedimentary rocks
   3. Metamorphism and metamorphic rocks
C. Relative and Absolute Dating Techniques
D. Surficial Processes
   1. Mass wasting
2. Streams and flooding
3. Glaciers and glaciation
4. Deserts and wind action
5. Waves, beaches, and coasts

E. Internal Processes
   1. Earthquakes
   2. Earth's interior and geophysical properties
   3. Plate tectonics

Learning Assessments:

Course competencies will be assessed by use of exams, quizzes, lab assignments, and written reports.

Instructional Materials:

ISBN: 9780073301785

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students must complete the “Disabilities Self-Identification Form” at this link: https://highlandcc.edu/pages/disability-services.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.