

JAMESTOWN COMMUNITY COLLEGE
State University of New York

INSTITUTIONAL COURSE SYLLABUS

Course Title: Physical Geology

Course Abbreviation and Number: GLG 1510

Credit Hours: 4

Course Type: Lecture/Lab

Course Description: In this classical introduction to geology, students will identify and explain the geologic processes operating on and beneath Earth's surface, including mineral and rock formation, plate tectonics, deformation, orogeny, weathering, erosion, transport, and deposition. Landforms resulting from geologic processes will be interpreted. Laboratory projects and field trips correlate with lecture topics.

Prerequisite/Corequisite: ENG 1510; [Corequisite: MAT 0550 OR Eligibility: college level math].

General Education Requirements Met

SUNY

Natural Sciences

JCC

Scientific Reasoning

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Identify common minerals and rocks.
 2. Discuss important definitions, concepts, and structures related plate tectonics, orogenies, volcanoes, and seismic events.
 3. List and Describe important definitions, concepts, and structures related to the rock cycle; specifically, the origin for the minerals and the process (conditions) for producing sedimentary, igneous, and metamorphic rocks.
 4. Use the basic geologic principle of uniformitarianism and the examples of present-day geologic processes to explain the formation and evolution of the features of the earth.
 5. Assess and evaluate competing hypotheses regarding the concept of geologic time, the origin of the earth and solar system, and plate tectonics.
 6. Test for the physical and chemical properties of minerals, and identify the most common minerals and igneous, sedimentary, and metamorphic rocks.
 7. Interpret geologic features and landforms from aerial photographs and topographic maps. Distinguish three-dimensional rock structures and faults from geologic maps.
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Topics Covered:

- Earth Structure
 - Introduction
 - Earth's Interior
 - The Sea Floor
 - Plate tectonics
 - Geologic Structures
 - Earthquakes – Mtn. Building
 - EQS
 - Lab EQS
 - Rocks and Minerals and Rock Formation
 - Minerals
 - Igneous Rocks and Volcanoes
 - Weathering
 - Mass Wasting
 - Sedimentary Rocks
 - Metamorphic Rocks
 - Geologic Time
 - Hydrosphere
 - Streams
 - Groundwater
 - Glaciers
 - Deserts
 - Shorelines
 - Resources
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Information for Students

- Expectations of Students
 - [Civility Statement](#)
 - [Student Responsibility Statement](#)
 - [Academic Integrity Statement](#)
- [Accessibility Services](#)

Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.

- [Get Help: JCC & Community Resources](#)
- [Emergency Closing Procedures](#)
- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.

Effective Date: Fall 2021