

ERSC 121

Physical Geology

3 Credits

Community College of Baltimore County
Common Course Outline

Description

ERSC 121 – Physical Geology: is a course that provides an overview of how the Earth works, including its composition, structure, surface features, and dynamic processes. Students investigate processes in the land, water, and regions of the Earth. Students participate in field trips outside of class hours. For students needing a lab, ERSC 122 Physical Geology Laboratory serves as the accompanying lab.

Pre-requisites: ACLT 053 or (ESOL 052 and ESOL 054) and MATH 082

Overall Course Objectives

Upon completion of this course, students will be able to:

1. apply scientific methods in solving problems related to geology;
2. explain the effects of interactions among processes operating within the geosphere;
3. present geologic information using clear written and/or oral communication;
4. analyze geologic data numerically and graphically;
5. interpret geologic data using mathematical methods;
6. compare and contrast how people across cultures have been affected by geologic processes unique to their geographical region;
7. examine how results from various observations and technologies are used in the solution of geologic problems;
8. find, evaluate, use, and cite appropriate sources of information to research geologic topics;
9. use appropriate terminology to describe the features and natures of objects examined in geology;
10. evaluate professional behavior within the scientific community including the ramifications of misconduct; and
11. use technology to gather data or solve problems in geology.

Major Topics

- I. Earth cycles and materials
- II. Constructive geological process affecting the landscape
- III. Destructive geological processes affecting the landscape
- IV. Metamorphism
- V. Geologic time
- VI. Running water and groundwater
- VII. Deserts and shorelines
- VIII. Deformation, earthquakes, and Earth's interior
- IX. Seafloor topography

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For more information, see your professor's syllabus.

- X. Continental drift and plate tectonics
- XI. Global topics in geology and their relationships to a diverse world
- XII. Academic and scientific integrity

Course Requirements

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- three exams and a cumulative final
- five quizzes
- one activity requiring student collaboration
- three written assignments, the length and nature of which will be determined by the instructor including one that will address the General Education Outcomes.

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their instructor.

Other Course Information

This course is an approved 3–credit General Education course in the Biological and Physical Sciences but does not fulfill the laboratory requirement.

One or more assignments will infuse CCBC General Education Program outcomes and will account for a minimum of 10% of the total course grade. The assignment(s) will allow students to demonstrate at least 5 of the 7 General Education program outcomes.

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