

Common Course Outline
ERSC 122
Physical Geology Laboratory
1 Credit

The Community College of Baltimore County

Description

ERSC 122 – 1 credit – Physical Geology Laboratory presents the methods and tools used by geologists to study the Earth. Students analyze minerals and rocks, interpret topographic and geologic maps and participate in field trips outside of scheduled laboratory hours.

1 Credit: 2 laboratory hours

Co-requisite: Concurrent enrollment in or successful completion with a C or better of ERSC 121

Overall Course Objectives

Upon completion of this course students will be able to:

1. use geological terms to describe minerals and rocks;
2. present geologic data numerically and graphically;
3. present geological information using written and/or oral communications;
4. identify common minerals and rocks;
5. use geological equipment and data (simulated or real) properly;
6. solve problems using geologic data and scientific methods involving geologic topics;
7. use topographic maps to draw conclusions about geological processes;
8. explain how results from observational technologies are used to develop theoretical models of the Earth;
9. find, evaluate, utilize and cite appropriate informational sources to research geological topics;
10. incorporate scientific and geologic information into written and oral communications regarding climate change;
11. interpret geologic data using mathematical methods;
12. evaluate and document appropriate informational resources to research geologic topics, and
13. discuss the roles that geological observational technologies have had within various cultures.

Major Topics

- I. Minerals
- II. Rocks
- III. Deformation, earthquakes and Earth's interior
- IV. Volcanoes and intrusive igneous activity
- V. Seafloor Topography

- VI. Running water and groundwater
- VII. Mass wasting
- VIII. Deserts and shorelines
- IX. Continental drift and plate tectonics
- X. Geologic time
- XI. Topographic maps
- XII. Topographic features
- XIII. Geological maps
- XIV. Climate change
- XV. Western standards of academic and scientific integrity
- XVI. Global topics in geology and their relationships to a diverse world

Course Requirements

Grading procedures will be determined by the individual faculty member but will include the following:

Grading/exams

- A minimum of 2 exams
- A minimum of 1 activity requiring student collaboration
- A minimum of 3 laboratory reports, the length and nature of which will be determined by the individual instructor.
- Attendance will be taken each class period as per college policy but no points will be rewarded solely for attendance. However, in-class assignments may be given that can only be completed within a certain class period.

Writing:

This companion lab supplements ERSC 121: Physical Geology which infuses the CCBC General Education Program Outcomes into the course. The formal assessment of those outcomes occurs in the requisite lecture course.

Extra Credit: Extra and bonus points awarded in the course should not exceed 2% of the overall course grade.

Other Course Information

This course is an approved General Education course in the Biological and Physical Sciences category. Successful completion of this course and the companion lecture course (ERSC 121) fulfills the laboratory requirement and equals 4 credits.