

Syllabus

Course Code: ENVR 130

Title: Physical Geology

Institute: STEM

Department: Environmental Science

Course Description: This laboratory science course focuses on the fundamental principles of Earth Science including the formation, history, and composition of the Earth. The relationships and interactions among rocks, minerals, and geologic processes will be analyzed. Students will study and discuss the nature, distribution, and origin of the materials that make up the Earth and the way in which these materials formed the current landscape; as well as the processes and forces that alter, transport and distort that landscape. Laboratory and field experiences will include the use of computer simulations, scientific data collection and analysis, and examination of in-situ rock formation. [Note: Completion of a college level science course with lab prior to taking ENVR 130 is highly encouraged.]

Prerequisites: MATH 021, MATH 025 or satisfactory completion of the College's foundational studies requirement in algebra.

Credits: 4

Lecture Hours: 3

Lab/Studio Hours: 3

Required Textbook/Materials: Physical Geology, 17th Edition, By Charles (Carlos) Plummer, Diane Carlson and Lisa Hammersley, ISBN10: 1264408056 | ISBN13: 9781264408054

Laboratory Handbook: The Physical Geology Lab Manual is available online or in the bookstore.

Additional Time Requirements: Additional weekly lab time is required for field trips. (Contact instructor for more information.)

Additional Support/Labs:

See <https://www.brookdalecc.edu/academic-tutoring/>

Course Learning Outcomes:

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

- Apply basic geological concepts to analyze and interpret chemical, geological and biological components of the Earth.
- Use appropriate verbal and writing skills to explain the basic theories, concepts and ideas behind the physical, chemical, geological and biological components that shape the Earth's surface.

- Employ the scientific method of inquiry to collect and analyze geological information for critical thinking, information analyses, and problem solving. Use mathematical and scientific reasoning for problem solving.
- Employ appropriate technology to analyze geological processes and issues.

Course Content:

Unit 1	Introduction, Plate tectonics Atoms, Elements, and Minerals Igneous Rocks, Intrusive Activity, and Origin Volcanism and Extrusive Rocks
Unit 2	Weathering and Soil Sediments and Sedimentary Rocks Metamorphism, Metamorphic Rocks Time and Geology
Unit 3	Geologic Structures Waves, Beaches and Coasts Glaciers and Glaciation Mass Wasting Streams and Floods Ground Water

Department Policies:

Attendance during class and laboratory sessions is strongly recommended for optimum performance in the course.

Lecture exams will be given in class or the Testing Center at the discretion of the instructor.

Lab practicals will be given during lab sessions at the designated times. A student who misses an exam or lab practical must provide prior notification and proper documentation in order to take the exam or practical. The acceptance of prior notification and proper documentation will be determined by the course instructor.

Documentation must be provided within one week of the student's return to the classroom for a make-up exam or practical to be scheduled. A student who is unable to provide proper documentation will be given a grade of zero for the missed exam or practical. Students may not re-take exams or practicals on which they perform poorly. Requirements for the completion of laboratory are listed in the laboratory responsibility sheet for the course. Requirements for course completion are listed in individual instructor syllabi.

Grading Standard:

Listed below are the types of assignments on which you will be graded (assignments are at the discretion of the instructor and may change throughout the semester).

Attendance:	10%
Three Examinations:	30%
Homework:	30%
Research Presentation:	5%
Laboratory:	25%

A student must have an average of 65% or better for the combined classroom and laboratory (hands-on) components of the course to earn a passing grade for the course.

Upon completion of the course, grades will be assigned as follows:

<u>LETTER GRADE</u>	<u>NUMERICAL GRADE</u>
A	90 – 100%
A-	88 – 89%
B+	85 – 87%
B	80 – 84%
B-	78 – 79%
C+	75 – 77%
C	70 – 74%
D	60 – 69%
F	less than 60%

Unit examination results will be reported as the grade assigned by the faculty calculated to the first decimal place. These grades will be weighed according to course grading policy.

In calculating the course grade, 0.5 will round up to the next numerical grade and 0.4 will round down to the next lower numerical grade.

**The syllabus is intended to give student guidance in what may be covered during the semester and will be followed as closely as possible. However, the faculty member reserves the right to modify, supplement, and make changes as the need arise.*

College Policies:

As an academic institution, Brookdale facilitates the free exchange of ideas, upholds the virtues of civil discourse, and honors diverse perspectives informed by credible sources. Our College values all students and strives for inclusion and safety regardless of a student's disability, age, sex, gender identity, sexual orientation, race, ethnicity, country of origin, immigration status, religious affiliation, political orientation, socioeconomic standing, and veteran status. For additional information, support services, and engagement opportunities, please visit www.brookdalecc.edu/support.

For information regarding:

- Academic Integrity Code
- Student Conduct Code
- Student Grade Appeal Process

Please refer to the [student handbook](#) and [catalog](#).

Notification for Students with Disabilities:

Brookdale Community College offers reasonable accommodations and/or services to persons with disabilities. Students with disabilities who wish to self-identify must contact the Accessibility Services Office at 732-224-2730 (voice) or 732-842-4211 (TTY) to provide appropriate documentation of the disability and request specific accommodations or services. If a student qualifies, reasonable accommodations and/or services, which are appropriate for the college level and are recommended in the documentation, can be approved.

Mental Health:

24/7/365 Resources:

- Monmouth Medical Center Psychiatric Emergency Services at **(732) 923-6999**
- 2nd Floor Youth Helpline – Available to talk with you about any problem, distress, or hardship you are experiencing. Call or text at **888-222-2228** or visit the website at <https://www.2ndfloor.org/>

Faculty Counselors:

- Students who need to make an appointment with a faculty counselor can do so by calling 732-224-1822 (non-emergency line) during business hours. Faculty counselors are licensed mental health professionals who can assist students and refer them to other mental health resources.

Diversity Statement:

Brookdale Community College fosters an environment of inclusion and belonging. We promote a safe and open culture, encourage dialogue respecting diverse perspectives informed by credible sources, and uphold the virtues of civil discourse. We celebrate all identities with the understanding that ultimately, diversity, equity, and inclusion cultivate belonging and make us a stronger Brookdale community.