



Course Prefix/Number/Title: GEOL 105, Physical Geology

Number of Credits: 4

Course Description: A lecture and laboratory study of the Earth as a physical body; its structure, composition, and the geologic processes acting on and within the Earth.

Pre-/Co-requisites: none

Course Objectives: Students will:

- 1) Understand the relationship of our Earth with the rest of the universe.
- 2) understand how the Earth works
- 3) understand how and why different kinds of substances are distributed on and in our Earth
- 4) Know how rocks and minerals are identified
- 5) be familiar with different geologic structures and how they are formed
- 6) understand that intelligently searching for metals, sources of energy, and gems is our responsibility.
- 7) Understand the Earth's position in the solar system

Instructor: Angela Bartholomay

Office: NSC 111

Office Hours: MWF 10:00-10:50am, T 1:00-1:50pm or by arrangement

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Lecture/Lab Schedule: Lecture; MWF 1-1:50pm, Lab; Wed. 2-3:50 or 6:00-7:50pm

Textbook(s): Physical Geology by Plummer & Carlson 12th Ed.

Course Requirements:

-Grades will be based on total points using the following percentage system:

100-90, A; 89-80, B; 79-70, C; 69-60, D; <60% F.

Assessment methods- measurement of the expected general education outcomes will be achieved through exams, quizzes, laboratory exercises and a final project.

-Exams- There will be 5 exams during the course of the semester. All exams will be worth 100 points. If you are going to miss an exam, you are expected to make it up ahead of time. Make up exams will be different and will be worth 70%, which must be made up a week.

-Lecture- Lecture outlines are available from the blackboard shell. The outlines can be used to guide you in the understanding of the material and assist in note taking. Be prepared and have the outlines ready for class.

-Quizzes- There will be 10-12 quizzes due each Wednesday.

-Laboratory- The laboratory portion of the course provides an opportunity to integrate lecture concepts with observable activities and is mandatory. There will be no make-ups for labs unless prior arrangements are made and the lab write-ups are due during the next lab period.

-Final lab project- This scavenger hunt allows you to demonstrate what you have learned throughout the semester.

Tentative Course Outline:

Lecture	Chapter and Reading Assignment	Lab Topic
Week 1	Chapter #1 p. 3-25	No Lab
Week 2	Chapter #2 p. 31-51	Scientific method
Week 3	Chapter #3 p. 55-76	Mineral identification
Week 4	Chapter #4 p. 83-109	Igneous Rock identification
	Exam #1 Chapters #1-4	
Week 5	Chapter #5 p. 113-133	Soil lab
Week 6	Chapter # 6 p. 137-165	Sedimentary rock identification
Week 7	Chapter #7 p. 169-190	Metamorphic rock identification
Week 8	Chapter #8 p. 193-216	Geologic time
	Exam #2 Chapters #5-8	
Week 9	Chapter # 9 p. 221-244	Fossil Lab
	Chapter #10 p. 247-280	
Spring Break- March 15-21		No Class
Week 10	chapter #11 p. 283-303	Ground water
Week 11	chapter #12 p. 307-335	
	Exam #3 Chapters #9-12	
Week 12	Chapter #15 p. 383-403	
Week 13	Chapter #16	
	Chapter #19 p. 407-438	Earthquake location lab
Week 14	Chapter #20 p. 491-52	
	Chapter #21 p. 527-548	
Week 15	Chapter #22 p. 551-579	Final Lab presentations
	Exam #4 Chapters 15, 16, 19-22	
Week 16	Final lab project Due April 30	Final Exam May 7th

General Education Goals/Objectives: This course meets General Education Goals:

Learning Outcome 1: Applies the scientific methods of inquiry.

- Performance Indicator 1: Utilizes the scientific process to solve problems.
- Performance Indicator 2: Interprets experimental data to draw logical conclusions.
- Performance Indicator 3: Applies technology in the scientific process.

Learning Outcome 3: Applies scientific information in everyday life.

- Performance Indicator 1: Utilizes scientific information in daily decision-making.
- Performance Indicator 2: Recognizes the role of science in nature and society.

Relationship to Campus Theme:

This course addresses the campus theme by incorporating the role that chemistry plays in our everyday life and the impact it has on our natural world. In addition students will use technology to conduct labs as well as study how technology can be used in chemistry. The course will address the role of Geology in their everyday life as well as in their future.

Classroom Policies;

Make-up: for missed exams will not be allowed unless prior arrangements have been made. If you must be absent for a school related or family event, you are expected to make prior arrangements and take the exam prior to the event. If you are given permission to take a late exam you will have 48 hours to make it up.

Electronic Devices: No electronic devices will be allowed. Cell phones must be turned off at all times in class! You will be asked once to put the phone away, if asked again you will be asked to leave.

Headphones will not be allowed!

Be respectful of other students, technicians, instructors, and guests!

Early Warning Attendance Policy will be followed

Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.