

Course Prefix/Number/Title: Geol 105/ Physical Geology online

Number of Credits: 4 semester hours

Course Description: Introduces students to geological structures, landforms, plate tectonics, mountain building, glacial activity, rocks and mineral processes. Topics of climate, watersheds and astronomy will also be discussed. Much of the laboratory work will be done in the Turtle Mountain area. This class will provide another general education lab science course especially appropriate for liberal arts and civil engineering.

Pre-/Co-requisites: none

Course Objectives: By the end of the course, you should be able to: 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. In addition we will work toward the regard of the environment and understanding of geologic hazards. Travel may be necessary to understand the role of Geology in everyday life.

Instructor: Angie Bartholomay

Office: NSC 111

Office Hours: MW 9:00-10:00am, MF 1:00-2:00 pm

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Lecture/Lab Schedule: TBA

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 within a week following the original exam.

Lecture- Lecture outlines are available from the moodle 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. End of the chapter questions will be

Assigned will not be graded but may be used to assist you on the quizzes.

Laboratory- The laboratory portion of the course provides an opportunity to integrate lecture concepts with observable activities. 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. No credit will be given for dry labs!

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

Tentative Course Outline:

Lecture Schedule		Reading assignment		Lab schedule
Week 1	Chapter #1	p. 3-25	introduction	No Lab
	Chapter #2	p. 29-41	minerals	
Week 2	Chapter #2	p. 41-51	igneous rocks	Mineral identification
Week 3	Chapter #3	p. 55-76		
Week4	Chapter #4	p. 83-109	volcanism	Igneous Rock identification
	Exam #1	Chapters #1-4		
Week 5	Chapter #5	p. 113-133	weathering & soil	Soil lab
Week 6	Chapter # 6	p. 137-165	sedimentary rocks	Sedimentary rock identification
Week 7	Chapter #7	p. 169-190	metamorphic rock	Metamorphic rock id
Week 8	Chapter #8	p. 193-216	Geologic time	Geologic time
	Exam #2	Chapters #5-8		
Week 9	Chapter # 9	p. 221-244	mass wasting	
	Chapter #10	p. 247-280	streams & floods	flood recurrence intervals
Week 10	chapter #11	p. 283-303	Ground water	
Week 11	chapter #12	p. 307-335	Glaciers	topographic maps
	Exam #3	Chapters #9-12		
Week 12	Chapter #15	p. 383-403	Geologic structures	
Week 13	Chapter #16		Earthquakes	Earthquake location lab
Week 14	Chapter #19	p. 407-438	plate tectonics	
Week 15	chapter #20	p. 491-522	Mountain building	
	Chapter #21	p. 527-548	Geologic resources	
Week 16	chapter #22	p. 551-579	Planets & solar system	Final Lab presentations
	Exam #4	Chapters 15,16, 19-22		
	Final lab project			
	Final Exam			

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s): #1 Identifies the interrelationships between humans and their environments

Learning outcomes #1 Applies scientific methods of inquiry

Learning outcomes #3 Applies scientific information in everyday life

Relationship to Campus Focus: A greater understanding of the Earth, Earth's resources and its companions in the solar system will lead to a greater respect for the environment. Students will explore career options for their future.

Classroom Policies: All work must be done in a timely fashion. All assignments are open and have due dates. If you miss a deadline for a quiz or exam, and wish to make it up let me know so I can open it for you, missed quizzes and exams will be worth 70%. All make-up work must be completed within one week.

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.