Dakota College at Bottineau Course Syllabus

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

Number of credits: 4 Credits

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: 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: Angela Bartholomay

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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.

Lecture Schedule		Reading assignment		<u>Lab schedule</u>
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		Fossil Lab
Week 9	Chapter # 9	p. 221-244	mass wasting	
	Chapter #10	p. 247-280	streams & floods	
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 Due Dec.9				
Week 17	Final Exam Dec. 16			

General Education Goals/Objectives: Goal 1: Describes the interrelationships between humans and their environment and the role of science in their lives
Objectives

- 1: Demonstrates the application of the scientific method of inquiry
- 2: Demonstrates understanding of the natural environment
- 3: Demonstrates an awareness of how science influences everyday life Relationship to Campus

Theme: 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.

Academic Integrity: Academic honesty is expected, any violations is sufficient grounds for immediate failure and removal from class. Cell phones must be turned off during class time.

Disabilities and Special Needs: Any student who has a disability that may prevent them from fully demonstrating their abilities should contact disability services

Jacalyn Migler 228-5672 jacalyn.migler@dakotacollege.edu to discuss accommodations necessary to ensure full participation and facilitate his or her educational opportunities.