Dakota College at Bottineau Course Syllabus

GEOL 105 - Physical Geology
4 Credits

Course Description: The purpose of this course is to present the various aspects of physical geology. Geology, the study of Earth, benefits everyone who lives on the planet.

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.

Instructor: Angela Bartholomay
Phone: 228-5471
Email: All class correspondence should be done in the Moodle course mail.
angela.bartholomay@dakotacollege.edu

Textbook: *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 final projects.

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%. They must be made up within a week following the original exam.

Lecture - Lecture outlines are available within the Moodle shell. Lectures should be viewed and the outlines used to guide you in the understanding of the material. The exam questions will originate from lectures as well as end of the chapter questions.

Quizzes - There will be 10-12 quizzes. End of the chapter questions 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. The lab activities can be downloaded, the questions answered and uploaded so they can be graded. Late work will be docked points. Make sure to put your name on all lab reports. Each lab write-up must be documented with a picture of you doing the lab.

Tentative Course Outline:

	Reading Assignment	**Lab Schedule**
Week 1	Chapter 1 (pg. 3-25)	Plate Tectonics & The Scientific Method
	Chapter 2 (pg. 29-41) Minerals (pg. 41-51)	Mineral Identification
Week 2	Chapter 3 (pg. 55-76	Igneous Rock Identification
	Chapter 4 (pg. 83-109) Exam 1 (Ch. 1-4)	
Week 3	Chapter 5 (pg. 113-133)	Soil Lab
	Chapter 6 (pg. 137-165)	Sedimentary Rock Identification
Week 4	Chapter 7 (pg. 169-190)	Metamorphic Rock Identification
Week	Chapter 8 (pg. 193-216) Exam 2 (Ch. 5-8)	Geologic Time
Week 5	Chapter 9 (pg. 221-244) Chapter 10 (pg. 247-280)	Fossil Lab
Week 6	Spring Break	
Week	Chapter 11 (pg. 283-303)	Porosity & Permeability
Week 7	Chapter 12 (pg. 307-335) Exam 3 (Ch. 9-12)	
Week	Chapter 15 (pg. 383-403) Chapter 16 (pg. 407-438)	Earthquake Location
Week 8	Chapter 19 (pg. 491-522) Chapter 20 (pg. 527-548)	Topographic map
Week	Chapter 21 (pg. 551-579	

Week 16	Chapter 22 (pg. 583-616)	
Week 17	Exam 4 (Ch. 15,16,19-22) Final Exam	Final Lab Project

General Education Goals/Objectives:

1) For a student to have a greater appreciation and understanding of the Earth on which they live and depend.
2) For each student to be able to use the knowledge they obtained in their future.

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. Components of technology will lead to this understanding. Students will explore career options for their future.

Classroom Policies: Deadlines have been set up in the course shell so that all the material can be covered in the semester. Please make sure that you keep on top of those dates because late work if accepted will only be worth a portion of the total.

Academic Integrity: All laws pertaining to copyright infringement must be adhered to closely. Any information you used must be adequately documented and referenced, giving credit to the appropriate person(s). Academic honesty is expected. Any violations of these terms is sufficient grounds for immediate failure and removal from class.

Disabilities and Special Needs: Any student who has a disability that may prevent them from fully demonstrating their abilities should contact the instructor to discuss accommodations necessary to ensure full participation and facilitate his or her educational opportunities.