

Geology 101 Physical Geology Fall 2010

Instructor: Penny Nicely (nicelyp@wnc.edu)

Office Hours: 2:30-5:00PM Monday and Wednesday, Room 102, Bently Hall, or by appointment

Class meets: M/W 5:30-6:45PM, Science Lab, Bently Hall

Text: *Physical Geology* 10th or 11th edition by Plummer, McGeary and Carlson, McGraw Hill publishers, ISBN 0-07-252815-X. You may use later editions of the text, but they cost more and will have different figure references.

The college bookstore has books available 3-4 weeks before the start of class. Other sources may be available. It is your responsibility to have your text in hand when class starts.

Course description: Covers fundamental principles of Geology: plate tectonics; minerals; igneous, sedimentary and metamorphic processes; geologic structures and environments and geologic time. This course is required for the WNC AS with Geoscience Emphasis and meets 3 credits of science for AA, AS and AGS degrees. It is the beginning course for any student wishing to continue in Geology, Geophysics or Geological Engineering. Note that to be considered lab science, Geology 103, Physical Geology Lab, must also be taken and is best taken concurrently with this class. Both are transferable.

Further information can be accessed at: www.wnc.edu/academics/catalog/geol/101.php

Prerequisites: Math 120, 126 or higher or consent of the instructor.

Course objectives: Students will have the opportunity to:

1. Gain factual knowledge (terminology, classifications, methods, trends) of physical geology
2. Learn fundamental principles, generalizations and theories about physical geology.

Class date Reading Assignment/Lecture topic

August	30	Introduction to class/ Chapter 1
Sept	2	Chapter 2, Atoms, Elements and Minerals
Sept	6	Labor Day Holiday
	8	Chapter 3, Intrusive Igneous Rocks
	13	Chapter 4, Extrusive Igneous Rocks
	15	Chapter 5/6, Weathering, Sediments and Sedimentary Rocks
	20	Continue Sedimentary Rocks
	22	Chapter 7, Metamorphic Rocks/Review
	27	Exam 1
	29	Chapter 8, Time and Geology
Oct	4	Chapter 9, Mass Wasting
	6	Chapter 10, Streams and Floods
	11	Chapter 10 cont and 11, Groundwater
	13	Chapter 14, Waves Beaches and Coasts
	18	Chapter 12, Glaciers and Glaciation/Review
	20	Exam 2
	25	Demonstration of Coastal and Stream Erosion
	27	Chapter 13, Deserts and Wind Action
Nov	1	Chapter 15, Geologic Structures

	3	Continue Geologic Structures
	8	Geologic Maps
	10	Chapter 16/17 Earthquakes and the Earth's Interior
	15	Chapter 18, The Sea Floor
	17	Chapter 19, Plate Tectonics
	22	Plate Tectonics continued
	24	Thanksgiving Holiday
	29	Chapter 20, Mountain Belts and Continental Crust
Dec	1	Chapter 21, Geologic Resources
	6	Presentations
	8	Presentations/Review
	13	Final Exam

Class Format: Class will start promptly at 5:30. Lecture will follow the chapters assigned from the text. You are expected to have read the assigned chapters prior to the lecture. Notes for the lectures are available at the instructor's webpage www.wnc.edu/~nicelyp.html beginning the first week of class. Questions and class participation are encouraged. Depending on the material covered, approximately the final 10 minutes of each session will be devoted to a question and answer format.

Class rules: Cell phones must be turned off during class. Students arriving late should enter quietly and join the class. This class is in the science lab; for your safety **no food or drink is allowed in the lab**. Students are expected to do their own work. Copying from a classmate is plagiarism and will be considered as would any other form of cheating. **Cheating in any form will result in a grade of F for the semester.**

Contacting the Instructor: Preferably by e-mail at the address above. Use the course title or number in the subject line (i.e. Geology 101). E-mails will be answered the day received. Or call the college office at 782-2413 and leave a message. Phone messages will be picked up Monday through Wednesday only. Email is the best choice.

Grading: Grades for this class will be on the points basis listed below. Everyone starts out with an A, the number of points you keep depends on you. 50 points will be given for attendance and participation. You will lose 5 points for every absence after the first two (i.e. You get two free). Final grades will be based on points earned in the three exams, quizzes and attendance and participation.

Quiz and Exam questions will be of the short answer variety and are closed book/note. There will be 4 quizzes worth 25 points each **unannounced** during the semester. They will be short and will only take 10 – 15 minutes. **Quizzes may not be made up.** For exams, you will be given the full lecture period. Exams **may** include bonus questions. Exams may be taken early by prior arrangement with the instructor without penalty. **Exams 1 and 2, if missed, must be made up within one week of the exam date** and will be assessed an automatic -10 point penalty. **The Final Exam may not be made up.** It is in your interest to arrange any necessary make-ups with the instructor as soon as possible.

There will be one option for extra points. If you choose to do so, you may make a presentation to the class on Dec. 6/8. This may be on any geologic topic you choose, but must be approved by the instructor no later than **November 8th**. Your presentation will be limited to 10 minutes. You may use Power Point or the overhead projector if you wish. **A bibliography with a minimum of 5 references and a summary paragraph will be required.** Wikipedia and Answer.com are not considered reliable references. This project will be worth a maximum of 50 points.

NOTE: NO W's WILL BE GIVEN IN THIS CLASS. It is the student's responsibility to withdraw prior to the deadline if they are not satisfied with their grade standing.

Points distribution:

Quizzes (4 at 25 points each)	100 points	
Exam 1	150 points	600-540 = A
Exam 2	150 points	539-480 = B
Exam 3	150 points	479-420 = C
Attendance & Participation	<u>50 points</u>	419-390 = D
Total	600 points	389 - = F

Grading example:

At the beginning of the class you have 600 points. On the first quiz you got 8/25 (32%). On the first exam you receive 132/150 (88%). You now have 565 points – still an A. You've come to class and participated so your 50 points are probably not in danger. You can lose a total of 25 points on the remaining three quizzes and 2 exams and still keep your A, but at this point you will be wishing you had studied more in the beginning. Don't wait! Remember, the points you end up with determine your grade at the end of the semester. Once you lose them, the points are gone, so study now and ask questions on anything that isn't clear. **It is not advisable in this course to wait until late in the semester and hope to "pull it out" at the final – it won't happen.**

Note that changes may be made to this syllabus up to and including the first week of class – This syllabus will be handed out the first class period.