

GEOLOGY 101 - PHYSICAL GEOLOGY

SPRING 2007

This Class and Lab are Cell-Free, Pager-Free Zones.

Dr. Allen Dennis

224 Science; 641-3396/allend@aiken.sc.edu

Office Hours: TTh, 9:45-11:30; 4:20-5:30

Other times by appointment

Texts: *Earth: Portrait of a Planet* 2nd ed., Marshak, *100 Topographic Maps*, Debruhl, ed.

Jan	16	Plate Tectonics	2-11, 76-105, 234-239, 728-9
	18	Atomic structure, ions, bonding	A1-A7, 108-129
	23	Minerals	108-129
	25	Silicate minerals	130-137
	26	Grad Apps due for May grads/	RJWPP due for Spring 07
Feb	30	(1st EXAM)	
	1	Bowen's Reaction Series	138-164
	6	Igneous rocks	242-273
	8	Volcanoes and plutons	
	13	Weathering	167-180
	15	(2nd EXAM)	
	20	Sedimentary rocks-clastics	165-166, 180-206
	22	Chemical sedimentary rocks	185ff, 195ff
Mar	27	Metamorphic rocks	207-233
	1	Plate Tectonics	
	6	(3rd EXAM)	
	8	More Meta Rocks	323-363
	9	WF date for Spring 07	
	13-15	SPRING BREAK	
	20	Plate Tectonics	
	22	Earthquakes	275-327, B-5, 6
	27	Earthquakes	
	29	(4th EXAM)	
Apr	3	Stream Processes	526-559
	5	Groundwater	596-624
	10	Groundwater	
	12	(5th EXAM)	
	17	Alpine Glaciation	681-720
	19	Continental Glaciation	
	24	Coastal Geology	560-595
	26	Coastal Geology	

The Final Exam for this class is scheduled for Tuesday 8 May at 8am.

My objective for this class is that you learn a system of knowledge about earth materials and the processes that are responsible for their formation. Because geology is an applied science, elements of chemistry, physics and mathematics are required. Laboratory exercises stress practice of skills and methods of problem-solving that geologists use. Field trips are essential for making observations about the physical processes that are active on earth, and applying lecture material. Frequent tests will allow you to monitor your progress in mastering this system of applied knowledge. Materials are regularly posted in the announcements and documents links on Blackboard ® (<https://blackboard.sc.edu/webapps/login>), students are responsible for these materials.

If you have a physical, psychological, and/or learning disability which might affect your performance in this class, please contact the Office of Disability Services, 126A B&E, (803) 641-3609, as soon as possible. The Disability Services Office will determine appropriate accommodations based on medical documentation. Good writing is valued in this course. Please remember that written work that you produce in this class can be included in your rising junior writing portfolio. For further information on the portfolio requirement please consult your USCA Undergraduate and Graduate Bulletin or visit Dr. Lynne Rhodes, Director of Writing Assessment, or the staff of the Writing Room.

Grading: There will be five 30 minute exams (40 pts) and a final (80 pts). The highest score of five 30 minute exams will be doubled. No exams will be made up, rescheduled or dropped.

Book report: You will be given a book list the first week of classes; You will choose a book from the list, read it, and write a report on it for 25 points. Details on the report will be included on the book list.

Laboratory: 10 pts a week may be scored in the Laboratory. Scores will be based on written lab exercises.

There will be two 20 point quizzes:

240	Five exams + double the highest exam	51%
80	Final (Tuesday 8 May at 8 am)	15%
25	Book report	5%
<u>160</u>	Lab Grade (120 + 40)	30%
505	Total Possible Points	

Your grade will be assigned according to your total points: A > 455; B > 404; C > 354; D > 327; F < 354.

LABORATORY OUTLINE

Laboratory meets Th, 1:40-4:20 in Sci 216. **Attendance is mandatory. You must bring a pencil and eraser to lab.**

Jan	18	Mineral identification B2, B3
	25	Tectonics
Feb	1	MINERAL QUIZ; Introduction to topographic maps † 494ff
	8	*Igneous rock field trip*
	15	*Sedimentary rock field trip *
	22	No Lab Scheduled
Mar	1	Igneous, Metamorphic and Sedimentary Rock id
	8	*Metamorphic rock field trip*
	22	Earthquake exercise
	29	ROCK IDENTIFICATION QUIZ
Apr	5	Streams, stream valleys, & gradients †
	12	Groundwater †
	19	Alpine and continental glaciation †
	26	Shorelines †

There will be no makeup labs. **Absence from more than 2 labs will be considered grounds for dropping any student from the roll.** † Bring 100 topographic maps today

* Field trip in USCA vehicles. Come in comfortable walking shoes and play clothes.