

GEOLOGY 101 - PHYSICAL GEOLOGY

FALL 2007

This class and lab are a cell-phone and pager-free zone.

Dr. Allen Dennis

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Office Hours: T, 4:30-5:30; W, 10-12.

Other times by appointment

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

August	23	Plate Tectonics	2-11, 76-105, 234-239, 728-9
	28	Atomic structure, ions, bonding	A-1 -7, 108-129
	30	Minerals	108-129
September	4	Silicate minerals	130-137
	6	(1st EXAM)	
	7	Grad Apps due for Dec grads/ RJWPP due for Fall 07	
	11	Bowen's Reaction Series	138-164
	13	Volcanoes and plutons	242-273
	18	Igneous rocks	
	20	Weathering	167-180
	25	(2nd EXAM)	
	27	Sedimentary rocks-clastics	165-6, 180-206
October	2	Sedimentary Facies	195ff
	4	Chemical sedimentary rocks	185ff
	9	Metamorphic rocks	207-233
	11	FALL BREAK	
	16	(3 rd EXAM)	
	18	Metamorphic rocks/ WF date	328-361
	23	Earthquakes	275-327, B-5, 6
	25	Earthquakes	
	30	(4th EXAM)	
November	1	Stream Processes	526-559
	6	Stream Processes	
	8	Stream Processes	
	13	Groundwater	596-624
	15	Groundwater	
	20	(5th EXAM)	
	22	THANKSGIVING	
	27	Alpine Glaciation	681-720
	29	Continental Glaciation	
December	4	Coastal geology	560-595
	6	Coastal geology	

The Final Exam for this class is scheduled for M Dec 10 at 11 am.

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.

If you have a physical, psychological, and/or learning disability that 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 Director 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 30 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	47%
80	Final (M Dec 10 at 11 am)	16%
30	Book report	6%
<u>160</u>	Lab Grade (120 + 40)	31%
510	Total Possible Points	

Your grade will be assigned according to your total points: A > 459; B > 408; C > 357; D > 306; F < 306.

LABORATORY OUTLINE

Laboratory meets Tuesday 8:00-10:40 or 1:40-4:20 (Section 001, 002), or Thursday, 8:00-10:40 (Section 003) in Sci 212. **Attendance is mandatory in the section in which you are enrolled; missing more than 2 labs will result in an F for the course. Bring pencil with eraser to lab.**

Aug	28/30	Mineral identification (B2, B3)
Sept	4/6	Tectonics
	11/13	MINERAL QUIZ; Introduction to topographic maps † 494 ff
	18/20	*Igneous rock field trip*
	25/27	Igneous rock identification
Oct	2/4	*Sedimentary rock field trip*
	9/11*	Sed/Met rock identification
	16/18	*Meta Rox trip*
	23/25	Quakes
	30/1	ROCK QUIZ
Nov	6/8	Streams†
	13/15	Groundwater
	20/22	No Lab this week
	27/29	Glaciation †
	4 / 6	Shorelines †

There will be no makeup labs. † **Bring 100 Topographic Maps book today.**

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