

GEOLOGY 101 - PHYSICAL GEOLOGY

FALL 2008

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*, 3rd ed., Marshak; *100 Topographic Maps*, Debruhl, ed.

August	21	Plate Tectonics	37-53, 57-76, 86-117, 257-63
	26	Atomic structure, ions, bonding	A-1 -7, 121-143
	28	Minerals	121-143
September	2	Silicate minerals	144-151
	4	(1st EXAM)	
	3/5	RJWPP due for Fall 08 / Grad Apps due for Dec grads	
	9	Bowen's Reaction Series	152-168
	11	Volcanoes and plutons	169-182
	16	Igneous rocks	266-298
	18	Weathering	184-198
	23	(2nd EXAM)	
	25	Sedimentary rocks-clastics	199-204
	30	Sedimentary Facies	209-227
October	2	Chemical sedimentary rocks	204-209
	7	(3rd EXAM)	
	9	FALL BREAK	
	14	Metamorphic rocks	228-256
	16	Metamorphic rocks/ WF date	386-399
	21	Earthquakes	303-361, B-5, 6
	23	Earthquakes	
	28	(4th EXAM)	
	30	Stream Processes	582-619
November	4	No class	
	6	Stream Processes	
	11	Groundwater	660-691
	13	Alpine Glaciation	757-782
	18	(5th EXAM)	
	20	Continental Glaciation	782-800
	25	Coastal Geology	631-659
	27	THANKSGIVING	
December	2	Coastal geology	

The Final Exam for this class is scheduled for M Dec 8 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 8 at 11 am)	16%
30	Book report (due by 5pm 21 Nov)	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	26/28	Mineral identification (B2, B3)
Sept	2/4	Tectonics
	9/11	MINERAL QUIZ; Introduction to topographic maps † 546-548
	16/18	*Igneous rock field trip*
	23/25	Igneous rock identification
Oct	30/2	*Sedimentary rock field trip*
	7	Sed/Met rock identification
	14/16	*Meta Rox trip* (16 incl. Sed Met ID)
	21/23	Quakes
	28/30	ROCK QUIZ
Nov	6/11	Streams†
	13/18	Glaciation †
	20/25	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.