

GEOLOGY 102 - HISTORICAL GEOLOGY

SPRING 2007

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

Class Meets 12:15-1:30 TTh in Science 200. Lab meets T 1:40-4:20
 Dr. Allen Dennis Office Hours: TTh 9:45-11:30, 4:45-5:30.
 224 Science/641-3396/ dennis@sc.edu Other times by appointment
 Texts: *Earth: Portrait of a Planet*, 2nd ed., Marshak; *Cradle of Life*, Schopf; *Beak of the Finch*,
 Weiner. *Book of Life*, ed. Gould; Reserve readings as assigned.

January	16	Introduction	BoL 22-35	
	18	The Rock Cycle and Plate Tectonics	M76-105,130-137,234-239;W3-48	
	23	Radiometric age dating	M364-404, 406-408	
	25	Modern plate settings		W49-114
	26	Grad Apps due for May grads/ RJWPP due for Spring 07		
February	30	(DISC 1) Quaternary Ice Ages and Climate Change 681-720, 721-747		
	1	La Grand Coupure – Floral & Faunal Changes M429ff		W115-157
	6	Mammals	BoL 169-217	
	8	K-T boundary extinction	M 428ff; BoL166-167	W 158-212
	13	(DISC 2) Dinosaurs	BoL 127-165	
	15	Rift Basins and Opening the Atlantic	M424ff	W213-247
March	20	Cordillera	M426ff	
	22	Test 2		W248-303
	27	(DISC 3) Paleomag	M54-73	
	1	Permian Extinction		
	6	Sequence Stratigraphy	M420-421; BoL 65-77	
	8	Absaroka sequence	M438-469	
	9	WF date for Spring 07		S1-100
March 10-18 Spring Break				
April	20	Appalachians	M356-358; 417ff	
	22	(DISC 4) Hox genes	BoL 45-63	
	27	Snowball Earth	M416ff	S236-263
	29	TBA		S139-163
	3	Eukaryotes and Ediacara	BoL 37-44	S164-182, 183-208
	5	DISC 5 Proterozoic		
	10	Archean and Archean Life	M410ff	S209-235, 264-277
	12	The Archean Earth		
	17	Archean		
	19	Moon and Meteorites	M408ff	S281-325
	24	Appalachian Field Trip		
	26	DISC 6	BoL 219-251	

If you have a learning or physical disability that might affect your performance in this class, please inform me and Coordinator of Disabled Student Services, x3609, to verify your status and provide you with appropriate assistance.

The Final is scheduled for Thursday 11am 3 May.

My objective for this class is that you begin to understand the reasoning behind how we know what we know about earth history and the history of life through time. Uniformitarianism is central to this understanding. We will be very interested in how different lines of evidence are assembled to construct models of the earth in the past, and what are the assumptions of these models. You will express your understanding of lecture and lab material (i.e., lines of evidence) and assigned readings through tests and discussions biweekly. Additionally, students will post questions and respond to their classmates via a threaded discussion hosted on Blackboard.

Grading: There will be five tests; the tests will be administered in the first half hour of lab on the given day. During class, discussions will be held on Gould, Schopf, Wiener assigned readings. Students will be given responsibility for leading discussion, and are expected to participate. **Absence from more than one discussion will result in an F for the class.**

A threaded discussion will be hosted on the Blackboard website for this class. Each student will be responsible for initiating at least two new threads on a content area and making at least three meaningful responses to posts.

Laboratory: 10 pts a week may be scored in the Laboratory. Scores will be based on written lab exercises. A single 20 point quiz is scheduled. **Absence from more than two labs will result in an F for the class.**

180	Five biweekly tests @ 30 pts; Double the highest test.
30	Introductory essay on your understanding of science (due at DISC 1)
50	Final (11 am, 3 May)
60	Discussion partic. (15 pts. for leading, 5 for each other discussion, 25 BB)
<u>140</u>	Lab Grade (10 pts/wk, 20 pt lab quiz)
460	Total Possible Points

Your grade will be assigned according to your total points:
A≥414pts, B≥368 pts, C≥ 322 pts, D≥276 pts, F≤276 pts.

LABORATORY OUTLINE

Laboratory meets Thursday, 1:40-4:20 in Sci 216. Attendance is mandatory. Bring a pencil and an eraser.

Jan	16	Rock Types/Overprinting/Unconformities
	23	Rock Identification and Contours
Feb	30	*Unconformity Field Trip*
	6	Facies and Geologic Maps (Test 1)
	13	Fossils
	20	Fossils and Time - dating
	27	*Fossil Field Trip*
Mar	6	Correlation (Test 3)
	20	*Clarks Hill Trip*
	27	Unconformities (Test 4)
Apr	3	Folds and Faults
	10	Igneous and Meta Rocks (Test 5)
	17	Lab Quiz
	24	*Lake Murray trip*

There will be no makeup labs. **Absence from more than 2 labs will be considered grounds for dropping any student from the roll.**

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