

## GEOL 305: EARTH SYSTEMS THROUGH TIME (SP 2011)

- LECTURES:** M/W/F, 11:15-12:05 Rm: CLS 510
- LAB:** Either: M 2:00-4:00 (Sct 1) or Tu 2:00-4:00 (Sct 2), EWS 208
- PROFESSORS:** **Dr. Art Cohen**, Office: EWSC 404  
Phone: 777-4502; E-mail: [cohen@geol.sc.edu](mailto:cohen@geol.sc.edu)  
Office Hrs: M/W 1:30-2:30 or call or e-mail for appt.
- INSTRUCT. ASSIST.** **Sumanta Chatterjee**, Office: EWS 305  
Phone: 777-2412; E-mail: [schatterjee@geol.sc.edu](mailto:schatterjee@geol.sc.edu)  
Office Hrs – Thurs – 2:00-4:00
- TEXTBOOKS:** *Earth System History* by Steven M. Stanley, 2009, W. H. Freeman and Company, Publishers. 3<sup>rd</sup> Ed.  
  
*Laboratory Studies in Earth History* by H. Levin & M. Smith, McGraw-Hill Publishers, 9<sup>th</sup> Ed.
- ATTENDANCE:** **Mandatory** at all lectures and scheduled labs. Please notify the lab instructor when you have a legitimate reason for missing a lecture or lab. Students are responsible for obtaining any material presented at missed lectures.
- GRADING:** **Three exams** = 70% of final grade.  
**Lab** = 30% of final grade.  
**Exams:** multiple choice, T/F, & short answer

**THE USC CODE OF ACADEMIC RESPONSIBILITY WILL BE ENFORCED. EACH STUDENT IS REQUIRED TO READ THE SECTION ON THE STUDENT DISCIPLINE SYSTEM, WHICH DETAILS STUDENT AFFAIRS POLICY IN: CAROLINA COMMUNITY: STUDENT HANDBOOK & POLICY GUIDE---**  
**(<http://www.sa.sc.edu/cc2002/judicial.htm#AcademicResponsibility>).**  
**ACADEMIC HONESTY IS EXPECTED OF ALL CLASS MEMBERS.**

### **LEARNING OBJECTIVES:**

By the end of the term, successful students should be able to do the following:

- Understand the complexity and **diversity of life forms that have occupied the Earth over time.**
- Be able to “read” the history contained in a set of rocks by **identifying the environments** in which they formed and **fossils** that occur in them.

- Explain how scientists can determine the **ages of rocks** and how these concepts have been used to construct the **Geologic Time Scale**.
- Understand the basic **principles of evolution** and evidence contained in the **fossil record** in support of these principles.
- Have a feeling for how the **physical features of the Earth** have changed over time (i.e., locations & geometries of ocean basins, continents, mt. ranges, etc.).
- Explain why this course is called **“Earth Systems” History** rather than Earth Hist

### APPROXIMATE SCHEDULE OF LECTURES

APPROX. DATES	APPROX. TOPICS	READING CHAPS.
Jan 10, 12 (M/W)	Intro	1
Jan 14 (F)	Earth as a System; Diversity of Life	1 & 3
Jan 17 (M)	<b>M.L. King Day-- No Class</b>	-
Jan 19 (W)	Earth as a System; Diversity of Life	3
Jan 21, 24, 26(F/M/W)	Environments & Life	4
Jan 28, 31 (F/M)	Sedimentary Environments	5
Feb 2, 4, 7, 9 (W/F/M/W)	Correlation and Dating of Rock Record	6
Feb 11 (F)	<b>Exam 1</b>	-
Feb 14, 16 (M/W)	Evolution and the Fossil Record	7
Feb 18, 21 (F/M)	Plate Tectonics	8
Feb 23, 25 (W/F)	Major Chemical Cycles	10
Feb 28 (M), Mar 2(W)	The Hadean & Archean Eons (Precambrian)	11
Mar 4 (F)	The Proterozoic Eon (Precambrian)	12
Mar 6-13	<b>Spring Break – No Classes</b>	-
Mar 14, 16 (M/W)	The Proterozoic Eon (Precambrian)	12
Mar 18, 21,23 (F/M/W)	The Early Paleozoic	13
Mar 25 (F)	<b>Exam 2</b>	
Mar 28, 30 (M/W)	The Middle Paleozoic	14
Ap 1, 4 (F/M)	The Late Paleozoic	15
Ap 6, 8 (W/F)	The Early Mesozoic	16
Ap 11, 13 (M/W)	The Cretaceous	17
Ap 15, 18 (F/M)	The Paleogene	18
Ap 20. 22 (W/F)	The Neogene	19
Ap 25 (M)	The Holocene	20
<b>2 May – 9:00AM</b>	<b>EXAM #3 (Final Exam)**</b>	-

**\*\*Note: Final Exam is 9:00 AM on Monday, May 2 not 11:00 AM, but is in same room as class**