

EART 9 – Earth History and Global Change, Fall 2014 Syllabus

Instructor: Mark Snyder, PhD

Office: Earth and Marine Sciences, A141

Email: masnyder@ucsc.edu

Office Hours: Wednesday 2 to 4 PM, or by appointment

Teaching Assistant: Bethany Nagid

Office: Earth and Marine Sciences, A361

Email: bnagid@ucsc.edu

Office Hours: Monday 2 to 3 PM, or by appointment

1. Course Information

Class Website: Available through the UCSC eCommons. Please visit this website to learn more about using eCommons <http://its.ucsc.edu/ecommons/documentation/student/index.html>. If you have any questions, please let us know.

Class Meeting Times: MWF 12:30 PM - 1:40 PM in Thim Lecture 003

Missed Lectures: If you miss class, you should get notes from a fellow student.

Textbook (required): Earth System History, 4th Ed., Steven M. Stanley (W. H. Freeman and Co.). The textbook is available in the BayTree Bookstore.

2. Course Outline

The study of Earth's history provides a rich account of many exciting and dramatic changes in environments, climate and life that have taken place through time. This course provides an introduction to those changes: what happened, how, why, when, and how we know. We will explore the history of Earth's changes from geologic, biologic, chemical, and climatic perspectives, and work to understand the linkages between these interconnected elements. This information sets the stage for understanding the current changes that are occurring in climate, environments and life on Earth, and frames the investigations of how these elements may change in the future.

This course fulfills a General Education category of PE-E (Environmental Awareness).

3. Course Evaluation

Homework assignments 25%

Two in-class exams each worth 25% (50% total)

Final exam 25%

Academic Integrity: You are expected to conduct yourself in a manner consistent with the UCSC Academic Integrity guidelines, which everyone should read (http://www.ue.ucsc.edu/ai_student-guide)

4. Exam and Homework formats and requirements

All exams and homework will use Scantron forms (Large, pink ParSCORE). You are responsible for purchasing these forms at the bookstore, and bringing them – and the appropriate writing instruments – to class for quizzes and exams. These materials will NOT be provided for you. You must use the large (pink) forms. See instructions on eCommons if you are not clear on this, or see me. The use of any electronic devices during exams will result in an automatic failing grade for that event.

Extra credit: ** There will be no extra credit offered to any individuals. No exceptions. ** I may give out extra credit work, but if I do, it will be available to all students in the class.

Late Work: I will not accept any assignments late. If you have an issue, please speak to myself or the TA immediately. Emailing us the hour before class is not acceptable.

5. Grades

Grading will not necessarily be “on a curve.” There is no expectation of what the average grade should be, nor of what the grade distribution should look like. If everyone were to demonstrate outstanding understanding of all the material, then everyone deserves a grade of A (and I would be very happy to give each one of them)! I therefore encourage you to discuss the course material with each other to get the most out of the class.

I will guarantee the following letter grades: if you get a 90% or above, you will get an A or better; 80% = B or better; 70% = C or better. The scale could slide downwards, e.g.. an A is actually 86% or better, but what I am saying is that it won't slide upwards.

EART 9 Fall 2014 Lecture and Exam Schedule

Date		Topics	Readings
Fri	Oct 3	Introduction and Syllabus	
Mon	Oct 6	Earth as a System - overview of Earth System History	Ch. 1
Wed	Oct 8	Rocks and the Rock cycle	Ch. 2
Fri	Oct 10	Fossils and the Diversity of Life	Ch. 3
Mon	Oct 13	Environments and Life	Ch. 4
Wed	Oct 15	Sedimentary Environments	Ch. 5
Fri	Oct 17	Correlation and Dating of the Rock Record	Ch. 6
Mon	Oct 20	Evolution and the Fossil Record	Ch. 7
Wed	Oct 22	The Theory of Plate Tectonics	Ch. 8
Fri	Oct 24	Exam #1	
Mon	Oct 27	Major Chemical Cycles	Ch. 10

Wed	Oct 29	The Archean and the Origin of the Earth	Ch. 11
Fri	Oct 31	Video - Origins: Earth is Born	
Mon	Nov 3	The Proterozoic Era	Ch. 12
Wed	Nov 5	The Early Paleozoic	Ch. 13
Fri	Nov 7	The Middle Paleozoic	Ch. 14
Mon	Nov 10	The Late Paleozoic	Ch. 15
Wed	Nov 12	Early Mesozoic	Ch. 16
Fri	Nov 14	The Cretaceous World	Ch. 17
Mon	Nov 17	The Paleogene	Ch. 18
Wed	Nov 19	Exam #2	
Fri	Nov 21	Monsoons and Milankovitch Cycles	Online
Mon	Nov 24	The Neogene World	Ch. 19
Wed	Nov 26	Pleistocene Ice Ages and the Advent of Humans	Chs. 19, 20
<i>Fri</i>	<i>Nov 28</i>	<i>Thanksgiving Holiday - No Class</i>	
Mon	Dec 1	Geologic History on Human Timescales (The Holocene)	Ch. 20
Wed	Dec 3	Video - Cosmos: Episode 12 "The World Set Free"	
Fri	Dec 5	Human impacts upon the planet	Online
Mon	Dec 8	Current climate states and challenges	Online
Wed	Dec 10	Global climate change (additional reading(s) to be assigned)	Online
Fri	Dec 12	Review for Final	
Wed	Dec 17	Final Exam 4:00–7:00 p.m.	