

CSUN Geol101: Geology of Planet Earth Syllabus, Fall 2011

Tuesday/Thursday 8:00-9:15 AM, Chaparral Hall Room 5122

Prof. Richard Heermance

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-office hours: Wed 10-12 AM or by appointment

-class webpage: "moodle" page at csun.edu

COURSE OBJECTIVES

- 1) understand the geology of the Western United States
- 2) learn to use the **scientific method**
- 3) apply your geologic knowledge to understanding different environmental, geologic, and political issues
- 4) introduce you to basic geologic concepts and how they are applied

TEXTS AND MATERIALS

Plummer GEOL101: Physical Geology, ISBN 9780077954314. This is a custom text made for CSUN, but is directly based on the text Physical Geology, 13th ed by Plummer, Carlson, and Hammersley. Four copies of this book are on reserve at the library (2 hrs/sitting).

CLASS LECTURE AND TEXTBOOK ADVICE

The most important concepts from each chapter will be highlighted during class, as well as other key concepts & quiz answers. To prepare for exams and study for class, you should go over your in-class notes, read each chapter outline, and the chapter summary. This will give you an overview of the chapter and allow you to focus on the key concepts. Pay careful attention to figures. Finish the chapter by asking yourself if you can define the "Terms to remember" at the end.

CLASS STRUCTURE

Please feel free to ASK QUESTIONS at any time during the class. This will hopefully make the material clearer and make class more interesting.

Syllabus subject to change.....

GEOLOGY DEFINITION: geo + ology = "earth" + "the study of"

GRADING

- 1) Problem Sets (4 @ 10% each) 40%
- 2) Exams (3 @ 15% each) 45%
- 3) Quizzes/Class Participation/Attendance 15%

Grades will be based on a class curve. At a minimum, the following percentages will correspond to each grade, although the cutoff percentage could decrease depending on the curve.

93-100 %	A	72-78%	C
90-93 %	A-	70-72%	C-
88-90%	B+	67-70%	D+
82-88%	B	63-67%	D
80-82%	B-	60-63%	D-
78-80%	C+	<60%	F

Grades of Incomplete are extremely rare and can only if be given if the student meets ALL the requirements set forth in University policy for Incompletes, including 1) has a passing grade in the work completed, 2) has completed a substantial portion of the work in the course, and 3) is able to complete the remaining work independently, with minimal assistance from the instructor. An Incomplete shall not be assigned when a student would be required to attend a major portion of the class when it is next offered.

CLASS RULES

- A. Turn OFF all cell-phones and other electronic equipment while in-class. This means NO TEXTING, TALKING, EMAILING, ETC IN CLASS! I will confiscate any equipment used for personal use during class time.
- B. Group work and discussion is encouraged. All written assignments and exams, however, must be done entirely by each student unless otherwise instructed.
- C. Honor code violations will result in automatic NO CREDIT

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Week	Dates	important dates	Topic	Chapter
1	Aug 30 Sep 01		Introduction to the Geology Atoms, Elements and Minerals	1(pp 3-14) 2
2	Sep 6 Sep 8		Atoms, Elements and Minerals Igneous Rocks: Intrusive	2 3, 4
3	Sep 13 Sep 15		Igneous Rocks (Extrusive) Weathering & Sedimentary Rocks	3, 4 5, 6
4	Sep 20 Sep 22	PS#1 DUE TU EXAM #1 TH	Sedimentary Rocks Exam Review (ch 1-6)	6
5	Sep 27 Sep 29		Metamorphism	7
6	Oct 4 Oct 6 Oct 7,8	Field Trip (PS#5) Fri/Sat	Streams and Floods	10
7	Oct 11 Oct 13	PS #2 DUE TH	Groundwater/Mass Wasting	9, 11
8	Oct 18 Oct 20		Glaciation & Climate Change	12
9	Oct 25 Oct 27	EXAM #2 TH (ch 7, 9-12)	Climate Change	12
10	Nov 1 Nov 3		Geologic Time	8
11	Nov 8 Nov 10	PS#3 DUE TH	Plate Tectonics	14
12	Nov 15 Nov 17		Geologic Structures	15
13	Nov 22 no class Th		Earthquakes	16
14	Nov 29 Dec 1	EXAM #3 TH (ch 8, 14-16)	Earthquakes	16
15	Dec 6 Dec 8	PS#4 DUE TH	Geologic Resources	21
16	Dec 15	FINAL (cumulative)	Final Exam 8-10 AM	

PROBLEM SETS

The Problem Sets are designed to encourage critical thinking and expose you to various geologic data. I will post instructions for each problem set every few weeks on MOODLE. You will have at least 3 weeks to complete each problem set. I will give you instructions and “pre-questions.” After you have completed the problem set, you will need to log into MOODLE and take the online exam based on the problem set “pre-questions.” The exam must be taken PRIOR to the 5 PM deadline for each problem set posted in the syllabus. NO EXCEPTIONS! Problem sets will be graded on a 25 point scale. The following list shows the problem sets that will be covered in this course:

- 1) “The Red Queen,” chapter two from Cadillac Desert by Marc. Reisner (1986).
- 2) Rivers (“virtual river” and USGS websites)
- 3) “The Climatic Rollercoaster,” in The Complete Ice Ages, ed. B. Fagan, 2009, pp. 64-91.
- 4) Using Google Earth to solve geologic problems
- 5) Field trip (8-11 AM, Friday, Oct 5 or 9-12 AM, Sat, Oct 6)

EXAMS

This class will have 4 exams (including the final exam). You will be allowed to drop the lowest exam score. All exams will be cumulative, although the recent material will be the main focus in each exam. All exams will be scantron and you must bring your own scantron card to each exam. There will be no make-up exams allowed.