

# Geography 311

## The Dynamic Earth

Fall 2005

California State University, San Bernardino

Instructor: Dr. Julie Cidell

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Office: SB 319

Office hours: TR 10-11, W 1-3, or by appt.

Website:

Class: TR 12:00-1:50

Lab: T or R, 2:00-4:50

Lecture classroom: TC 015

Lab classroom: SB 361

### Course description:

A systematic survey of Earth's physical environment, including the spatial and temporal interrelationships among the Earth's atmosphere, oceans and land. Students will be introduced to selected methods and tools of scientific inquiry and analysis used in the earth sciences. In other words, why the physical environment looks the way it does (and how we know).

### Course objectives:

- Students will demonstrate knowledge and understanding of natural phenomena such as Earth-sun relationships, distribution of world climates, and the forces that shape landforms.
- Students will apply the methodologies of science when approaching a scientific problem, such as global warming or other human impacts on the environment.

### Course requirements:

There are two lectures and one laboratory section each week. You are expected to attend all three. Tests will be based on material from class notes as well as the textbook, so you are responsible for hunting down any information you may have missed. If you are going to miss a test, you **must** notify me ahead of time or have a legitimate written excuse (doctor's note, etc.).

The laboratory is an integral part of the course, and attendance is required in the lab as well as in lecture. We will occasionally be going outside to conduct lab activities; I will notify you in advance so you can dress accordingly. There will usually be sufficient time in class to complete the lab assignments, though you will be allowed to finish them at home if necessary. Lab assignments are due at the start of the next week's *lecture*, with

10% to be deducted for every class period they are late (in other words, skipping lecture to finish the lab assignment will lose you a letter grade on the lab).

**Required text:**

The textbook is Physical Geography by McKnight and Hess. Though the 8<sup>th</sup> edition is preferred, and assignments and references will be based on those page numbers, earlier editions are also acceptable. The reading assignment for each class period is listed in the syllabus, and should be done *before* class. You are also required to obtain a world atlas such as Goode's or Rand McNally to assist you in studying for the map quizzes and performing certain lab exercises. (Goode's is available at the bookstore.) Laboratory sessions will require a calculator and other materials as noted on the lab syllabus.

**Grading:**

Grading will be based on two midterms and a final; ten lab exercises; and ten "mini-assignments." Tests will include multiple choice and short answer questions. Each midterm will cover 3 weeks' worth of material, and questions will come from class notes (including lab notes) *and* the textbook. Study guides will be provided a week in advance. The final will cover the *whole* semester, with emphasis on the last third.

The lab syllabus will explain procedures in more detail for that part of the class. Each lab assignment counts for twenty points. If you miss a lab, you **must** make it up in or before the next lab session.

There will be one mini-assignment every week (plus one extra), something on the order of answering questions based on the readings, or a group activity done in class. Five of the ten mini-assignments will be a map quiz, each based on a different region of the world. Base maps are available on the class website, and the list of required places is attached to this syllabus. Each mini-assignment is worth ten points and, (except for the map quizzes) *can not be made up if missed*. However, the lowest grade will be dropped, and map quizzes may be made up on the day of the final. Points will be awarded as follows:

<b>Assignment</b>	<b>Points</b>
Midterms	200 (2 tests, 100 points each)
Lab assignments	200 (10 parts, 20 points each)
Mini-assignments	100 points (10 parts, 10 points each)

Final	200 points
<b>Total</b>	<b>700</b>

There will be **no** extra credit assignments.

Some lab and mini-assignments will be done individually (such as the map quizzes), while others will be done in collaboration with one or more people. However, cheating or plagiarism will not be tolerated on any class activities. As defined by the Council of Writing Program Administrators, "plagiarism occurs when a writer deliberately uses someone else's language, ideas, or other original (not common-knowledge) material without acknowledging its source." Cheating will result in an F for the assignment and possibly for the entire course. See me if you are unsure about what constitutes cheating or plagiarism, or check out <http://www.wpacouncil.org/node/9>.

Any student who may need extra assistance with regards to meeting the requirements of this course (e.g., learning or physical disability) is requested to speak to me as soon as possible so we can discuss how to ensure you get the most out of the class. Thanks!

## Course schedule

<b>Date of class</b>	<b>Chapter(s) to read</b>	<b>Topics covered</b>
1: Sept. 22	1	Intro to physical geography
<i>Thursday: Lab 1</i>		<i>Reading topographic maps</i>
2: Sept. 27	2 (pp. 30-46)	Map reading and the Earth
<i>Tuesday: Lab 1</i>		<i>Reading topographic maps</i>
3: Sept. 29	3, 4	The atmosphere, insolation and temperature
<i>Thursday: Lab 2</i>		<i>Temperature</i>
4: Oct. 4	5	Atmospheric pressure and winds
<i>Tuesday: Lab 2</i>		<i>Temperature</i>
5: Oct. 6	6	Atmospheric moisture <b>Map quiz 1: North America</b>
<i>Thursday: Lab 3</i>		<i>Adiabatic cooling and warming</i>
6: Oct. 11	7	Weather and storms
<i>Tuesday: Lab 3</i>		<i>Adiabatic cooling and warming</i>
7: Oct. 13		<b>MIDTERM I</b>
<i>Thursday: Lab A</i>		<i>Teaching science</i>
8: Oct. 18	13	Intro to landforms
<i>Tuesday: Lab 4</i>		<i>Rock ID, geologic maps</i>
9: Oct. 20	14 (pp. 380-393)	Plate tectonics and earthquakes <b>Map quiz 2: South/Central America</b>
<i>Thursday: Lab 4</i>		<i>Rock ID, geologic maps</i>
10: Oct. 25	14 (pp. 393-423)	Volcanoes
<i>Tuesday: Lab 5</i>		<i>Field trip?</i>

11: Oct. 27	15, 17	Weathering/mass wasting, karst
<i>Thursday: Lab 5</i>		<i>Field trip?</i>
12: Nov. 1	16	Fluvial landscapes
<i>Tuesday: Lab 6</i>		<i>River discharge and channelization</i>
13: Nov. 3	19	Glacial landscapes <b>Map quiz 3: Europe/Middle East</b>
<i>Thursday: Lab 6</i>		<i>River discharge and channelization</i>
14: Nov. 8	20	Coastal landscapes
<i>Tuesday: Lab 7</i>		<i>Coastal erosion</i>
15: Nov. 10	18	Arid landscapes
<i>Thursday: Lab 7</i>		<i>Coastal erosion</i>
16: Nov. 15		<b>MIDTERM II</b>
<i>Tuesday: Lab A</i>		<i>Teaching science</i>
17: Nov. 17	8	Climates <b>Map quiz 4: Africa</b>
<i>Thursday: Lab 8</i>		<i>Classifying climates</i>
18: Nov. 22	9	Hydrosphere and water resources
<i>Tuesday: Lab 8</i>		<i>Classifying climates</i>
Nov. 24	No class	<b>THANKSGIVING</b>
19: Nov. 29	10	Biosphere, soils
<i>Tuesday: Lab 9</i>		<i>Ecosystems and biomes</i>
20: Dec. 1	11	Biogeography <b>Map quiz 5: Asia</b>
<i>Thursday: Lab 9</i>		<i>Ecosystems and biomes</i>