

Physical Geography

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<http://geography.sierracollege.edu/booth/notes.html>

Course Description

This course will study the Earth's dynamic processes and patterns worldwide. You will understand how mountains are formed, how they erode, how storms are formed, why California is so dry and much more about the lithosphere, atmosphere, hydrosphere and biosphere. By the end of this class, you should be able to interpret your environment. As you drive down the road and see an "fault block mountain range" or hear about a "high pressure" cell on the news, you will know what they are talking about from your background in physical geography.

Course Goals

By the end of this semester, the student should be able to recognize major physical components, characteristics and concepts of the Earth. Specifically your success depends on learning these general concepts: the seasons, the characteristics and dynamics of the atmosphere, including heating, pressure and winds, the hydrological cycle, formation of storms, major climates and causes, landform processes (plate tectonics, mountain building, volcanism), gradation and fluvial processes, glaciation, and other erosional processes.

Course Student Learning Objectives

Course Student Learning Objectives (CSLO's) are key topics that are even more specific than goals and general concepts. They have specific outcomes or "answers" that are measurable. That is, you will probably be tested on these topics (and more) with questions on a test. Here is the list for this course:

CSLO 1 - Evaluate effects of gradient upon stream velocity characteristics, which in turn affect a stream's ability to either erode or deposit its load. Likewise evaluate lower reaches stream landform features, but in this case relating velocity to meandering stream characteristics, such as point bars and cut banks. Apply to delta landforms as well.

CSLO 2 - Compare and contrast differing tectonic plate motions and boundaries to common landforms that result (E.g. violent composite volcanoes at convergent plate boundaries with oceanic- continental plates).

CSLO 3 - Distinguish earth's movements as they relate to causes of seasons, changes in daylight, and global insolation budget.

CSLO 4 - Predict primary climatic controls of a place on earth based on several broad categories (e.g. latitude, ocean proximity, wind and ocean currents, etc).

CSLO 5 - Describe common map projections pros and cons as they relate to: direction, distance and shape or size. For example, students should know that the famous Mercator projection is best used for compass direction but not used to show size or shape of Greenland, which is greatly increased in size (in some cases double what it should be).

CSLO 6 - Illustrate layers of the earth, including material, approximate depth, and rigidity. For example, the inner core is completely solid and made of iron, while the mantle is 1800 miles thick and plastic-like nearing the crust.

To help you become literate in these key concepts, the instructor may provide extended discussions, learning aids and study guides.

Texts and Suggested Reading

- *Physical Geography: A Landscape Appreciation*, McKnight / Hess
- *Physical Geography Course Pack*, S. Booth
- World Atlas - shows enough detail for map quizzes (see [Map Lists](#))
- Eleven (11) small format scantron forms (green [Quiz strip 815-E](#))
- Three (3) large scantron sheets (green [Form No. 882-E](#))

Attendance, Expectations and Classroom Decorum

I expect you to come to class always, just like a job. There will be a roll sheet passed around at most class sessions, which you are asked to sign. This is not a self-guided course, and you cannot grasp the full scope of this subject on your own. Additionally, many of the test questions will come from lectures, videos and discussions.

- Electronic devices are allowed to be used only outside and during breaks.
- If you are going to be absent or late, you do not need to let me know beforehand. A roll sheet will be passed to account for absences.
- If you do not attend more than the number of times allowed by the college catalog, you risk being dropped from the class roster!
- Do not talk or disturb others with private conversation during class. If you are perpetually late, absent, or discourteous, I will talk to you after class and drop you from this class if needed.

Academic Honesty

Do not cheat, plagiarize, or furnish false information to the college as defined by the Sierra College academic regulations. If you are guilty of dishonesty, you will receive a failing grade. Sierra College may further discipline you through reprimand, probation, social probation, suspension or expulsion. I have failed students for cheating, so do your own work.

Grades

A = 89.5 to 100%	Exam 1 = 100 points
B = 79.5 to 89.4%	Exam 2 = 100 points
C = 69.6 to 79.4%	Exam 3 = 100 points
D = 59.5 to 69.4%	Quizzes, Assignments & Exercises = 125 pts
F = below 59.5%	Group Presentation = 75 points

Missing Tests - Taking a mid-term exam is a big deal and there are no make-up exams! For exceptions of any kind, you must tell me in advance. For extraordinary cases, such as a dire medical illness, incarceration, an alien abduction or an event beyond your control, you must contact me before the next class meeting. You must also provide proof of this situations. For chapter and map quizzes, there are no make-up tests at all. The class is designed to sum all your best scores and throw out your missed or low-score quizzes.

Credit / No Credit - You may take this course on a credit / no credit basis or a letter grade. A letter grade will be assigned unless you request a CR/NCR option.

Adds & Withdrawals - There will be no late adds. You must pay your fees within the first two weeks of the semester in order to be enrolled in this class. Withdrawals or a "W" cannot and will not be granted to any student who is enrolled in the class after the "W" deadline (beginning of Nov. (fall) and middle of April (spring)). It is your responsibility to initiate this process! Students who do not request a "W" before the deadline and do not complete course work (including Exam 3) will receive a failing grade.

Incomplete - an incomplete "I" grade is rarely granted except under extraordinary circumstances with verified proof, such as a written medical notice.

Methods of Instruction

This class is taught using lectures, discussions and in-class assignments. Some assignments may be assigned outside of class and you will be expected to participate in a local field trip (TBA). In order to improve the overall learning experience, I may ask students to provide feedback regarding class material. Participation is very important in the learning process. I also appreciate voluntary feedback from you regarding "what works and what doesn't work" in the classroom.

Motivation, Study Habits and Testing

Probably the most important aspect for you to master in this class is finding a reason to be here.

It can't just be any reason to be here, however; it must be an intrinsic reason to be here. What does "intrinsic" mean? It doesn't mean you signed up for this class because it "looked good on the schedule, and besides, a friend told me it's the easiest science class to take." Or -- "it really fits my schedule on a Tuesday and Thursday." Or "the textbook had a nice cover" etc. An intrinsic reason means you find an internal, passionate reason to make this class meaningful to your life. "I care passionately about the environment and the Earth; I love being outside and in nature; I want to know what all this talk about global warming means; when I travel, I find the world is a really cool place and I want to know more about it" -- all these statements are intrinsic reasons to be in this class. Find one for yourself. You simply won't enjoy coming class each week, or reading the textbook before class, and studying throughout the semester for weekly quizzes if you are not motivated. Finally, you simply won't be successful in this class if you are not motivated to be here in the first place.

Good Study Habits

- First, no miracles happen in this class. You certainly won't succeed in this course just by coming to class and listening to lectures without a solid effort outside of class.
- Read the textbook *before* class; come to class every single time; read the textbook again after class; think about the lecture material outside of class; interact in class as much as possible, even if you are shy; study in class by listening carefully to the lecture, and take good notes that mean something to you. These all are good study habits and I'm sure you have others to add to this list.
- Likewise, bring something to class besides your pencil, namely something inside your brain regarding the topic -- your own questions about the topic, a general knowledge about the topic, personal experiences, etc. Then you can begin to really begin the process of learning rather than simply being there.

But many students study hard for the test and still mess-up.

What can you do to improve your test scores? Here are some test taking skills:

- The most obvious way to succeed on a test is to test yourself ahead of time. You might try doing this with a friend and classmate after you read the textbook. It's proven that people who study together do much better on tests.
- When reading a multiple choice question, think about the answer before you read the selection; then go straight for the answer. Don't let the distracting answers mess you up. If you know the answers, it's there.
- For true and false questions, just read the statement to see if it make senses in its entirety, and if it does make complete sense, then mark true. If there is anything wrong with it, then mark false. It's that simple. There are no trick questions, just some questions that are more detailed than others.
- Take your time because "haste makes waste." The majority of people fail on their first exam much worse than they ever imagined because they carelessly read the exam questions. Often they kick themselves afterwards because they made the dumbest mistakes.
- Remember, "the devil is in the details," and you must know the details when coming into a test. Keep in mind these questions are designed to sort out the average from the above-average student. Quite often the exam questions are not going to be as easy as they appear. Usually there is one answer that's ludicrous, one answer that is probably wrong, and then at least two answers that are very close. If you know the right answer beforehand, then the correct answer will become self-evident.

Concluding Words

The effort put forth by you will not only show in your grade, but will also make you an informed citizen enlightened about our rich and diverse world. Geography is about everything that surrounds us. You can't miss seeing, hearing, touching and even tasting it. Stories in the newspaper, magazines and in the news abound with geographic issues every day. This class will help you understand these stories and issues much better.