

Geology 100: Introductory Geology with Field Emphasis Spring 2007

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Office Hours: *Please feel free to come by any other time but your safest bet is to make an appointment first.*

Class Schedule: MWF (BC, 9:05-11:05) and MW (EFGH, 12:20-4:30)

Course Materials: **Textbook:** Understanding Earth by Press, Siever, Grotzinger, and Jordan (W.H. Freeman and Company)
Field notebook (of your choosing)
You will need to bring your field notebook to every class regardless of whether we have a trip 'officially' scheduled.
A lead pencil with an eraser
Map: US Geological Survey 1:100,000 Buena Vista Quadrangle
Hand lens (Available via Deborah Hubbard, the Geo. Dept. Secretary: A213)
*****CPS remote from eInstruction**

Course Format: We will meet in classroom G22 Science Addition at the beginning of each class period. Although we won't always be outside, be prepared to work in the field every day. Class sessions will be a combination of lectures, group discussions, and laboratory exercises based upon the assigned reading as well as field work. In order for us to have meaningful field and classroom discussions of any given topic, it is important that you complete your reading assignment before the class period indicated. A more detailed *tentative* schedule is attached. I will try to stick to that schedule but be prepared to be flexible. If we get particularly interested in a topic we may get a little behind. If serious weather problems occur, we may jump ahead to the next topic.

Assignments/Labs: I expect you to work collaboratively in the lab and field, but all writing assignments must be completed on your own unless otherwise indicated by me. You may also be required to turn in your completed notebook for a grade at the end of term.

CPS: The Classroom Performance System is an interactive electronic student response system that allows you to gauge your understanding of class material in real time. You will each have a remote pad (purchase at the bookstore) that allows you to answer questions in class. We can then look at the results of class 'votes' to see how well everyone is understanding the material presented in class. This will allow me to skip over material you know so we can focus on material that is unclear. This is a fun and useful teaching and learning tool that I hope you will enjoy using!

- Participation:** Participation in all field work is required!
- Quizzes:** You will 5 quizzes during the term. The quizzes will be taken on your own time between Thursday and Monday class sessions.
- Grading:**
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| Assignments, Labs, and Participation (including CPS) | 50% |
| Quizzes (5 total) | 50% |
- Fieldwork:** We will explore geology in the field rain or shine. Therefore it is important that you come to class prepared. Invest in a raincoat and boots/good hiking shoes (no flip-flops). There is no way to make up a missed fieldtrip.... So don't miss one! If a legitimate problem occurs, you must notify me well in advance of the trip you must miss. My goal is to introduce you to one of the most diverse geologic regions in the US. My hope is that we will all have fun exploring the region together!
- Safety in the Field:** In order to enjoy our field experiences we need to be aware of our surroundings and come prepared for field work. Therefore, please take note of the following advice:
- Wear sturdy shoes or boots. You will often be climbing on loose rock and many rocks can be slippery, especially when wet.
 - Stay out of the road when looking at roadside outcrops! Always be aware of traffic and help keep your fellow students aware as well.
 - When using a rock hammer, make sure you (and your fellow students) are not too close, as rock chips can fly off at top speed. Only use the blunt (not pointed) end of the hammer.
 - Don't hammer at any outcrop that may be unstable above you and be wary of overhanging ledges.
 - Don't stand too close to steep cliffs or ledges.
 - Be aware of rattlesnakes and copperheads that like to sunbathe on rocks.
 - Be sure to check yourselves for ticks when returning from the field.
 - Be sure to avoid Poison Ivy (three serrated leaves).
 - If you have any special allergies or medical concerns, PLEASE let me know ASAP!
 - Beware of Yellow Jackets that sometimes nest in the ground.
 - USE COMMON SENSE!!!

Tentative Schedule

Readings (the numbers refer to chapters in your textbook) must be done BEFORE class

Day	Date	Topic	Reading
Monday	4/18	Introduction to the course, observations in the field	
Tuesday	4/19	Earth materials	3
Thursday	4/21	Plate tectonics and the rock cycle	2,4
Monday	4/25	Igneous rocks and processes	5
Tuesday	4/26	Volcanism	6
Thursday	4/28	Field mapping	
Monday	5/2	Weathering and erosion	7
Tuesday	5/3	Sedimentary rocks and processes	8
Thursday	5/5	Mass wasting	
Monday	5/9	Metamorphism	9
Tuesday	5/10	Geologic time and relative dating	10
Thursday	5/12	Records of past worlds	
Monday	5/16	Deformation of rocks and structural geology	11
Tuesday	5/17	Earthquakes	19
Thursday	5/19	Water and the Earth	
Monday	5/23	Groundwater and surface water processes	13
Tuesday	5/24	Natural resources	23
Thursday	5/26	Caving trip!!	