

Geology 303 Natural Disasters – Section 5

Fall 2011

Lecture: Tuesday, Thursday 11:00 am-12:15 p.m.

NE-60

Instructor: Kim Olsen

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Office Hours: Monday and Wednesday, 1:00 p.m. – 3:00 p.m.

Course Description

This course applies the basic principles of climate and geology to the recognition and analysis of natural hazards, and the mitigation of related disasters. Topics include fires, floods, winds, landslides, volcanic eruptions, earthquakes, and tsunamis. An important part of this course will be to demonstrate that natural hazards and disasters can be understood in a logical, scientific manner, and we will evaluate hazards of concern to home-buyers, developers, and planners in the western U.S., and especially southern California.

General Education Requirement

This course fulfills the following SDSU General Education Requirement: IV EXPLORATIONS - Natural Sciences

Textbook

Abbott, P. L. (2011), *Natural Disasters, 8th Ed.*, McGraw-Hill

Note: I use this book largely as a reference in class; I often go into more detail in my lecture than the book goes, and in places the book also has extra detail that I don't use. Thus, you need to come to class to hear the lecture; you can't get all the required information from the book.

Note: Although I strongly recommend that you use the current (8th ed.) version of the book, I will not absolutely require you to do so. However, I may use figures from the current edition in my lectures, and these figures may not be in your prior edition. Also, the reading assignments will be based on the chapters and pagination of the current version of the book.

Criteria for Evaluation

Exams

In this class you will take 3 30-minute midterms (prior to 45 minutes of normal lecture) and one cumulative final exam, all mostly multi-choice questions. I will drop your lowest grade out of the 3 midterms. If you miss one of the midterms for any reason, that grade will be the one that is dropped. There will be **no make-up exams**, so please plan your schedule accordingly. Exams will multiple-choice. The exams will require you to analyze, apply, and synthesize what you have learned in the class.

Exams will not be re-scheduled for your personal convenience. Exams may be re-scheduled by me as the progression of the course determines. Exams CANNOT be made up. If you plan to miss an exam, then that is the exam that you will drop. I do not make any exceptions to this at all. Plan straightaway on taking ALL exams. Missing an exam with excuses like but not exhaustive of "forgetting about the exam", "my dog ate my notes", or any type of "work schedules, airline conflicts, traffic accidents, sick parents, sick roommates, sick pets, dead uncles or dead grandmothers", or "aunts who committed suicide but whose bodies haven't been found yet", etc, will not be tolerated. This is the exam that you drop.

- You will not be allowed to leave the classroom for any reason during exams.
- You will not be accepted into the classroom during an exam if you arrive after the first student finished.
- Grading errors or questions, if any, must be brought to my attention within 1 week of receiving an exam/assignment score.

Handling a mobile phone, as well as ANY other type of electronic devices, including electronic dictionaries and calculators, is expressly prohibited during exams. No exceptions! Anyone caught will fail a test or the course and further disciplinary action will be pursued.

SCANTRONS: You must bring the large red scantron form Parscore F-288 (enrollment form) for the first exam only. Thereafter, you will need the smaller red scantron form Parscore F-289. You must bring a #2 pencil for exams. **Note:** You must **fill in and darken** your scantron answers completely. You must also fill in the Test Form box. Failure to do any of this will result in lower scores or no score because the scanning computer is not able to make out your answers or match them to my key.

Writing Assignments

There will be two assignments of Essays (2 pages long, 11 pt font, 1.5 line spacing), to be turned in (printed) along with Midterms 2 and 3.

In summary, here is how your final grade will be calculated:

| | |
|--|-----|
| Midterms (two best scores from three Exams): | 35% |
| Cumulative final exam: | 40% |
| Essays (2): | 25% |

Your final grades will be based on the percentage of the total points available in the class. I plan to base your grades on the following scale, although minor adjustments may be made.

- 93.3 – 100. A
- 90.0 – 93.3 A-
- 86.7 – 90.0 B+
- 83.3 – 86.7 B
- 80.0 – 83.3 B-
- 76.7 – 80.0 C+
- 73.3 – 76.7 C
- 65.0 – 73.3 C-
- 60.0 – 65.0 D+
- 55.0 – 60.0 D
- 50.0 – 55.0 D-
- < 50 F

Attendance and Note-taking

I will not be taking attendance during class. However, it is recommended that you attend every class and take high-quality notes. If you miss a lecture, please see another student in the class to borrow her/his notes, as I do not loan out my personal notes. I have not authorized anyone to sell lecture notes for this class or to post them on the internet, so be wary of anyone who offers to sell you lecture notes for this class.

Lectures start by a short (<15 mins) discussion session, where I will answer questions (if any), and we can discuss recent disasters. Your participation in the discussion is a very good way to improve your grade, so you should take advantage of this opportunity!

In my experience, those students who attend lectures and discussion sections regularly, take good notes, and study hard before exams are the ones who do well in this class.

Lateness to class: This is disruptive to lecture and is never appreciated by me or by the students. Don't do it! **Do not** engage in side conversations with your friends. This is disruptive and distracting to other students.

THE FOLLOWING IS NOT TOLERATED DURING CLASS TIME: using your mobile phone for ANY purpose at all (this includes texting), using cameras, ipods, headphones, reading newspapers/magazines/books, studying for other classes, or sleeping and snoring.

Class Web Site

I will post you announcements and class handouts on the Blackboard site for the course. Equally importantly, the web site may contain links to information to help you complete your assignments and reinforce the material covered in the class. I will make sure that all handouts are available on the web site at least 1 day before you need them for class; therefore, you should check the class web site before class (preferably the day before) so that you can download the material. I will **not** be handing out paper copies of course materials regularly in class, so check this web site before each class.

Academic Dishonesty/Cheating

I will follow (and expect you to be familiar with) the University's policies on academic dishonesty. Just as you are expected to abide by all laws of this country and state regardless of whether you are aware of them, ignorance of what constitutes cheating or plagiarism will not be accepted as an excuse for improper behavior. I encourage you to discuss the course material with your classmates, but everything that you turn in (exams and homework) must be your own work in your own words. Copying or paraphrasing other people's work is unacceptable. For example, if your homework has the same or substantially similar wording/figures as somebody else's homework, you may well be in violation of the above policy.

Some additional rules that apply during exams include:

1. Cell phones, computers, tablets, and other electronic devices are not allowed in exams.
2. It is prohibited to sit next to someone with whom you have previously studied.
3. There may be multiple exam forms. In such a case, it is prohibited to have the same exam form as a neighboring student on either side of you.

Note that violating any of the above rules (as well as any campus-wide rule) constitutes cheating. If you have any questions as to what is acceptable, please come talk to me before you make the wrong decision! Students violating any of the above policies will be reported immediately to the campus judicial affairs office.

One More Thing

If you feel there is something that I can do to help you learn better, or if you have any questions or comments about the class, please feel free to come talk with me. I understand that many of you don't consider yourselves scientists, and may find some of the class material unfamiliar and difficult. I fully expect that some of the material may be hard to understand without getting extra help. Please do not hesitate to ask questions in class (I guarantee you're not the only one with a question!), and seek out my help in office hours. I encourage you to take an active role in the learning process. You will learn better and enjoy the class more.

Course Schedule

Note: While the subject matter is subject to re-scheduling (depending on whether we are running ahead or behind in the lecture), the exam dates are cast in stone and will not change. If the subject matter changes or is re-scheduled, the material on the exams will change accordingly; I won't test you on material that we haven't covered in class.

| <u>Date</u> | <u>Event</u> | <u>Chapters</u> (8 th Edition) | <u>Chapters</u> (7 th Edition) | <u>Tentative Material</u> |
|------------------------------------|---------------|--|--|--|
| 8/30 – 9/1 | | 1 | 1, 2 | Introduction, Natural Disasters and the Human Population |
| 9/6 – 9/8 | | 2 (4, 6) | 2, 3 | Internal Energy and Plate Tectonics |
| 9/13 – 9/15 | | online, 2 (4,6) | Online, 4 | Rock Types, Plate Tectonics |
| 9/20 | Midterm 1 | 6, 7 | 8, 9 | Volcanoes |
| 9/22 | | 6, 7 | 8, 9 | Volcanoes |
| 9/27 – 9/29 | | 3, 4, 5, 6, 7 | 8, 9, 4 | Volcanoes, Earthquakes |
| 10/4 – 10/6 | | 3, 4, 5 | 4, 6, 7 | Earthquakes |
| 10/11 – 10/13 | | 3, 4, 5 | 4, 6, 7 | Earthquakes |
| 10/18 | Midterm 2 | 8 | 5 | (Essay #1 due) Tsunami |
| 10/20 | | 8 | 5 | Great CA ShakeOut, Tsunami |
| 10/25 – 10/27 | | 8, 15 | 5, 10 | Tsunami, Mass Movement |
| 11/1 – 11/3 | | 15 | 10 | Mass Movement |
| 11/8 – 11/10 | | 9, 10, 11, 12 | 11, 12 | External Energy, Weather, Climate Tornadoes, lightning, Heat, Cold |
| 11/15 – 11/17 | | 11 | 13 | Hurricanes |
| 11/17 | Midterm 3 | 13 | 14 | (Essay #2 due) Floods |
| 11/22 | | 13 | 14 | Floods |
| 11/24 | | | | Thanksgiving Holiday |
| 11/29 – 12/1 | | 14 | 15 | Fires |
| 12/6 – 12/8 | | 12, 16 | 16, 17 | Climate Change, Impacts with Space Objects, Mass Extinctions |
| 12/13 | | | | Catch-up Topics, Review for Final |
| 12/15 (10:30a.m.– 12:30p.m.) | Final Exam | | | |