

# Geology 158 - Natural Disasters

**Fall Quarter 2009** (14366, SEC 03)  
**Hours:** MW 11:40 AM - 1:20 PM  
**Room:** PS 223  
**Webpage:** [www.geophile.net/College](http://www.geophile.net/College)

**Instructor:** Sonjia Leyva  
**Office:** PS 221, 323-343-2149  
**Office Hours:** MW 11:00 - 11:30 AM  
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**Course Description:** Causes, characteristics, and case histories of natural disasters affecting civilization. Topics include earthquakes, volcanic eruptions, landslides, storms and floods, sea waves, meteor impacts, climate change, and mass extinctions.

**Course Objectives:** This exciting course reviews the causes, characteristics, and case histories of the natural disasters that have plagued human history. Topics include earthquakes, volcanic eruptions, landslides, storms, floods, giant sea waves, meteor impacts, climate changes, and mass extinctions. Suggestions are made for avoiding geologic hazards. Lectures are illustrated with photos that demonstrate the severity of natural disasters. Students are introduced to Internet websites that enable them to pursue any topic in greater detail in order to more fully evaluate and prepare for natural events.

**Text & Materials:** Natural Hazards and Disasters, 2005 Hurricane Edition by Donald Hyndman & David Hyndman, in addition to handouts, activities, videos, etc.

## Tentative Schedule

Week	Date	Topic	Chapter
1	9/28	Lecture: Introduction	1
	9/30		
2	10/05	Lecture: Plate Tectonics	2
	10/07	Video: Deepest Place on Earth	
3	10/12	Lecture: Earthquakes	3 & 4
	10/14		
4	<b>10/19</b>	<b>Furlough Day – Class Cancelled</b>	
	10/21	Lecture: Tsunami	5
5	<b>10/26</b>	<b>MIDTERM EXAM</b>	
	10/28	Lecture: Fire	16
6	11/02	Lecture: Volcanoes	6 & 7
	11/04	<b>Project Due!</b>	
7	<b>11/09</b>	<b>Furlough Day – Class Cancelled</b>	
	<b>11/11</b>	<b>Veteran’s Day – Campus Closed</b>	
8	11/16	Lecture: Floods	11 & 12
	11/18	<b>(Last day to turn in extra credit EQ kits)</b>	
9	11/23	Lecture: Mass Wasting	8 & 9
	11/25		
10	11/30	Lecture: Coastal Hazards	13
	12/01	<b>(Last day to turn in extra credit)</b>	
11	<b>12/7</b>	<b>FINAL EXAM - 10:45 am. - 1:15 p.m.</b>	

## REQUIREMENTS

**Exams** - There will be two exams - one midterm and one final. Make-up exams will be given only to those who can verify a valid excuse for missing an exam. The make-up will be given at a time that is mutually agreeable to both the student and myself, but must be arranged prior to the initial exam. **Failure to take the make-up exam within two weeks of the original exam date will result in the missed exam counting in as a zero.** In addition, the exam question sheet must be returned to me after the exam and after the exam review. Failure to do so will result in a ten (10) -point reduction in the student's grade for that exam.

**Research Project** – The University requires students in General Education classes to demonstrate proficiency in writing, critical thinking, and oral presentation. Therefore, each student will be expected to prepare a research paper on current issues in the field of natural disasters. Guidelines and topics for these presentations are outlined on the attached pages.

**Attendance** - Students are expected to attend each class session and to arrive on time. It will be difficult to make up missed class sessions. However, if you miss a class session of valid reasons (illness), it will up to you to make arrangements to complete the activity. Students who miss a class due to an unexcused absence will NOT be allowed to make up the work. Make-up exams/assignments will be given **only** to those who can verify a **valid** excuse for missing the assignment. The make-up exam/assignment will be given at a time that is mutually agreeable to both the student and myself. **Failure to take the make-up exam/assignment within one week of the original lab/assignment date OR before the last week of class will result in the missed exam/assignment counting in as a zero.**

**Internet Access** - Internet access is suggested for this class because much of the course content will be posted on the class web site, [www.geophile.net/College](http://www.geophile.net/College). Access at home or work is fine as long as you can view the web pages regularly and have a reasonably fast connection.

## METHODS OF EVALUATION

Total possible class points will come from the following assignments:

	Points possible	Total Points Possible	% of grade
Exams	2 exams at 100 points each	200	50.0%
Project	200 points	200	50.0%
<b>Total</b>		<b>400</b>	<b>100%</b>

You may do up to 20 points of extra credit work to raise your total points earned. Your grade is based on your percentage score out of 400 points. Grades will be assigned using + and - (i.e., B+, B or B-). **All extra credit with the exception of the EQ kit is due the last day of class - not the day of the final!**

A =	> 90%	> 360.0 points
B =	80 - 89%	320.0 - 359.9 points
C =	70 - 79%	280.0 - 319.9 points
D =	60 - 69%	240.0 - 279.9 points
F =	< 60%	< 240.0 points

Want to get a good grade? Here's how:

1. Attend every class & ask questions.
2. Take notes and review them after class and before exams.
3. Read your textbook / do the assignments
4. Turn in all work on time
5. **You are responsible for studying.**

## IMPORTANT POLICIES (a.k.a. the “fine print”)

- **Statement of Reasonable Accommodation:**
  - The Department of Geological Sciences faculty members fully support the Americans with Disabilities Act (ADA). The members of the faculty will provide reasonable accommodation to any student with a disability who is registered with the Office of Students with Disabilities (OSD) who needs and requests accommodation. The faculty may wish to contact the OSD to verify the presence of a disability and confirm that accommodation is necessary. The OSD will arrange and provide for the accommodation.
  - Reasonable accommodation may involve allowing a student to use an interpreter, note taker, or reader; accommodation may be needed during class sessions and for administration of examinations. The intent of the ADA in requiring consideration of reasonable accommodation is not to give a particular student an unfair advantage over other students, but simply to allow a student with disability to have an equal opportunity to be successful.
- **Student Conduct:**
  - Student conduct is viewed as a serious matter by the faculty members of the Department of Geological Sciences. The Department faculty members assume that all students will conduct themselves as mature citizens of the campus community and will conduct themselves in a manner congruent with university policies and regulations. Inappropriate conduct is subject to discipline as provided for in Title 5, California Code of Regulations (see student conduct: rights and responsibilities, and student discipline, CSULA General Catalog). Academic honesty is expected of all students in the Department, in accordance with University policy. There are established university reporting procedures if a student is suspected of committing an academically dishonest act.
  - The University has a clearly defined policy on Academic Honesty. This policy will be enforced in this class. **Cheating and plagiarizing will not be tolerated.** Students caught plagiarizing and/or cheating will be subject to the consequences and set forth in the University Catalog, Appendix D - Academic Honesty. You can access it online at: <http://catalog.calstatela.edu>
- **Make-up exams:** Make-up exams will be given only to those who can verify a valid excuse for missing a quiz. The make-up will be given at a time that is mutually agreeable to both the student and myself. **Failure to take the make-up exam within two weeks of the original exam date will result in the missed exam counting in as a zero.**
- **Grading:**
  - University policy allows a grade of incomplete to be given only to those who have been sick, injured, or have a similar valid excuse. A grade of “incomplete” will not be given after poor performance in the course.
  - If you are repeating any Cal State L.A. course in order to remove a D or an F from your transcript, you must file an **academic renewal petition** in Administration 101 no later than the last day to add a class. Instructions for doing this may be found under **"Academic Renewal"** in your Schedule of Classes.
  - University policy requires that all students shall be graded in *exactly* the same fashion. What does this mean? You may not ask for extra assignments or to repeat an exam to improve your grade, or additional assignments after the course is completed.
- **Avoid the hassles.** Take the Writing Proficiency Examination (WPE) after you have completed your English Composition and prior to the completion of 135 units in order to avoid a registration hold. The dates for the WPE are published in the Schedule of Classes. Enroll by registering in UNIV 400 and paying the \$15 exam fee. Do it now!!!

# Natural Disaster Project

In this activity you will be answering the following essential question: What can you do to prepare for a natural disaster? Your task will be to create a preparedness guide to one of the following different natural disasters:

- Hurricane
- Tornado
- Volcanic Eruption
- Earthquake
- Tsunami
- Lightning
- Landslide/Debris flow
- Thunderstorms

You will then compile the information you have gathered into a single document that answers the following questions:

1. Assess the risk:
  - o How common is this disaster and where does this disaster normally occur?
  - o What are the major causes of damage, destruction, death associated with this disaster?
2. Prepare, Respond, & Recover:
  - o What can be done before, during and after the disaster happens?
3. Reducing the risk:
  - o What, if anything, can be done to prevent this disaster from occurring?
  - o What can be done to reduce the damages caused by this disaster (if any)?
4. Plan ahead:
  - o Create an *Emergency Disaster Plan* for yourself and your family. This plan should be tailored to you and your family's needs and should be for any type of emergency. Items to include are:
    - a map of your house (or apartment) showing the location of major utilities (gas, water, etc), escape route & earthquake supplies and potential hazards (heavy furniture, bookcases, large windows or mirrors, etc)
    - an evacuation plan
    - a list of household members (Identify anyone with impairments or who may need help evacuating)
    - a meeting place to gather when it is safe
    - the name and number of an out-of-state contact
  - o Plan a *Home Emergency Disaster Kit* for yourself and your family. It is important to be prepared to survive without electricity, phones, water, etc. for up to three days after a disaster. Create a detailed list of supplies you and your family will need to survive post-disaster. **YOU DO NOT NEED TO PURCHASE THESE ITEMS AS A PART OF THIS PROJECT!**

Your project will need to be in the following format:

- Introduction
- Body of report (Assess the risk, Prepare, Respond, & Recover, Reducing the risk, & Plan ahead)
- Conclusion
- Bibliography (in correct format!)
- Appendices (if needed)

You will be graded on the quality of your research, the quality of your writing, answering as completely as possible the questions posed above, and neatness.

Please plan on using at least five (5) difference sources for your research, two of which must be something other than a website (ie, a book, a magazine article, etc.). **DO NOT** simply copy and paste information from websites or other documents! This is plagiarizing and will not be tolerated. You may not use your textbook or my lecture notes as resources.

Note the deadline for this project on the syllabus. **LATE WORK WILL NOT BE ACCEPTED!** You may email me your project so long as I get it **BEFORE** the start of class the day it is due.

## Natural Disaster Project

**Points will be awarded as follows:**

**points possible**

<b>Formatting</b>	
Typing and margin instructions followed	
10 to 12 point Arial or Times Roman (or similar) font	3 points
1 ½ line spacing	
1" margins on all sides	
3 – 5 pages in length	5 points
Spell check / Typos	2 points
<b>Narrative and Writing Style</b>	
Connection of thoughts / Transitions	2 points
Verb & subject agreement / Grammar	2 points
Correct Essay Format	2 points
Punctuation / Run on sentences / Sentence fragments	2 points
Development of ideas	2 points
	<b>20 points</b>

<b>Report</b>	
Introduction	5 points
Assessment of risk	30 points
Prepare, Respond, & Recover	60 points
Reducing the risk	30 points
Planning ahead	40 points
Emergency Disaster Plan	
Home Emergency Disaster Kit	
Conclusion	5 points
Bibliography	10 points
	<b>180 points</b>

**Total points possible**

**200 points**