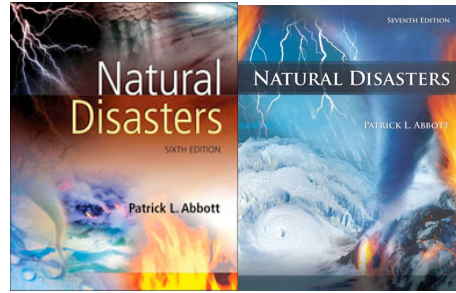


# **SIO15: "Natural Disasters" (Fall 2010)**



## **Description:**

This course is an introduction to environmental perils and their impact on everyday life. We explore how geological processes such as earthquakes and volcanic eruptions work and how they change our environment. We explore the mechanisms of meteorological processes and the conditions under which extreme weather such as major storms, tornadoes and hurricanes form. We cannot prevent these conditions but we can learn how to monitor them and take precautionary measures. The discussion of extreme weather also includes the causes and consequences of floods, droughts and the conditions that lead to devastating wildfires. Global climate changes also have a large impact on the biosphere. These can be short-term events such as El Nino, or long-term such as major ice ages. We discuss causes of mass extinctions throughout Earth's history. Finally, we explore the involvement of human activity in the cause and prevention of natural disasters.

## **Class Website, lecture schedule and lecture notes:**

<http://quakeinfo.ucsd.edu/~gabi/sio15>

The class website provides the lecture schedule, announcements, lecture notes and handouts as well as supplemental material. Midterms and the final exam are based on lecture notes, web material, homeworks and popquizzes.

## **Text Book and Web Material:**

The course is loosely based on "Natural Disasters" by Patrick L. Abbott, 7th edition, (ISBN 978-0-07-337669-1). The 6<sup>th</sup> edition (ISBN: 978-0-07-305034-8) is also ok. Lectures are accompanied by enough web material to summarize essentials. However, the web material is brief and students not coming to the lectures should consult the book. Students on a tight budget are encouraged to purchase older editions, e.g. the 5<sup>th</sup> edition, ISBN: 0-07-282681-9. The lectures on human impact are based exclusively on web material.

## **Lectures: Location and Times:**

Lectures usually held by instructor Laske  
Peterson Hall 108, MWF 3:00 - 3:50pm



## Problem Sessions: Location and Times:

Optional weekly problem sessions on  
Wed 6:00-6:50pm and/or Thu 6:00-6:50pm, York 2622  
to discuss material and homework with TAs:



Lindsay Smith,

Diego Melgar,

Alan Foreman,



Lauren Rafelski,

Shi Sim

Yan Gao

## Contact Information:

Gabi Laske 534-8774, [glaske@ucsd.edu](mailto:glaske@ucsd.edu), 324 Munk Lab, IGPP at SIO

## Grading and tests:

Grades are based on weekly homework (30%), midterm 1 on Oct. 25 (15%), midterm 2 on Nov. 22 (20%), and the final exam on Dec. 10 (35%). No late homework will be accepted. Homeworks copied from somebody else will be given 0 points. Hand-written cheat sheets will be allowed in the exams (1 for the midterms, 2 for the final). About 5 open-notes pop-quizzes will be given randomly during lectures. A fully correct answer will give one point as extra credit added to the cumulative final grade. The grade scales are not curved.

## Field Trips:

There will be two REQUIRED field trips to the SIO Beach and the Birch Aquarium in November. Please check the class website for updated info. The field trips will make up two of the 8 homework assignments.

## Submit your personal experience:

Natural disasters may have affected many of us. Students are encourage to discuss these in the weekly problem sessions. In addition, students can submit stories and photos to the course website. These will stay on the website for future classes.