

Fall 2012



# SIO15

## Natural Disasters



smart phone website

### 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 to facilitate note-taking as well as supplemental material. Midterms and the final exam are based on lecture notes, web material, homeworks, field trips and pop quizzes.

### Web Material and Text Book:

The 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 additional material. As the course progresses, the class website opens links to material from a book in preparation: "Exploring Natural Disasters: Natural Processes and Human Impacts" by Gabi Laske. The course will mostly follow the book and students are advised to download and read these chapters.

### Lectures:

Lectures are held by Prof. Gabi Laske  
Warren Lecture Hall 2001, MWF 3:00 - 3:50pm

### Office hours:

Tue 4:00 - 4:50pm, York 3030, starting Oct 02



### Contact Information:

Gabi Laske (858) 534-8774, [glaske@ucsd.edu](mailto:glaske@ucsd.edu), Munk Lab room 324, IGPP at SIO  
Email is the best way to communicate. Please add "SIO15" to your subject lines.

## Discussion Sessions:

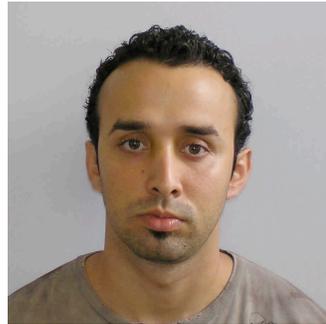
Optional weekly discussion sessions on to discuss material and homework with TAs:  
Wed 5:00-5:50pm and/or Thu 5:00-5:50pm, York 3030 (starting Oct 03)



Natalie Juda



Christopher Corder



Jorge Perez



Thi Truong



Bina Patel



Doug Tomczik

## Grading and tests:

Grades are based on weekly homework (25%), midterm 1 on Oct. 29 (15%), midterm 2 on Nov. 30 (20%), the final exam on Dec. 14 (35%) and pop quiz credits (5%). No late homework will be accepted. Homeworks copied from somebody else will receive 0 points. Hand-written 8.5x11" cheat sheets will be allowed in the exams (1 for the midterms, 2 for the final). Grade scales are linear and posted on the class website.

## Pop quizzes:

Open-notes pop-quizzes will be given randomly during lectures. A fully correct answer will give 1% credit that is added to the cumulative final grade. A total of 9 credits may be earned. Pop quiz credits can only be earned when attending the lectures.

## Field Trips:

There will be a REQUIRED field trip to the SIO Beach and 2 self-guided tours to the Birch Aquarium in October and November. Please check the class website for info. The field trip and tours have on-site assignments that will make up 3 of the 8 homeworks.

## Submit your personal experience:

Natural disasters may have affected many of us. Students are encouraged to discuss these in the weekly discussion sessions. In addition, students can submit stories and photos to be included permanently on the course website. We also have a Facebook page (link on the class website) where material can be posted, discussed and exchanged.