NATURAL HAZARDS AND DISASTER PREPAREDNESS - CORS 220 (HONS)

Instructor: Simon Kattenhorn (Geological Sciences)
Fall Semester 2008: TR 9.30 - 10.45 a.m., TLC 249

Course Summary

Examination of the types, frequency, geographic distribution, and current scientific understanding of different types of natural hazards, including geological, meteorological, and extraterrestrial hazards. Emphasis on how we can use scientific knowledge for appropriate disaster preparedness and hazards mitigation. Includes case examples of natural disasters and analysis of long-term social, political and economic impacts.

Course Goals

Natural disasters are a fact of everyday life. On almost any day, international news bulletins tell of some disaster that has befallen a remote location on Earth. Sometimes the disasters are on our doorstep. Most places in the world are at some risk from what nature can impart, whether it be geologic hazards (e.g., earthquakes, volcanic eruptions, floods, and landslides), weather and climate hazards (e.g., hurricanes, tornadoes, ice storms, lightning strikes, wildfires, drought, and global warming); and extraterrestrial hazards (e.g., meteorite impacts, solar flares, and gamma ray bursts).

Disasters are also among the few events on Earth that unite humans. They emphasize our innate desire to reach out and help our fellow people. Unfortunately, the aid is often too little, too late. What is more advantageous is advanced planning, forethought, informed decision making, and dissemination of information through education. In other words, disaster preparedness. In order to be sufficiently prepared for any disaster, we must understand the science behind the hazard itself.

This course will examine the numerous types of natural hazards that people must face. It will examine the potential effects of natural hazards on the landscape of the Earth in general, as well as on populated areas specifically, through numerous case studies. It will illustrate both the short-term and long-term hardships and consequences of natural disasters on the social, economic, and political arenas. It will also highlight those locations (particularly using examples in the U.S.A.) where disasters are likely to occur in the future, scientific analyses of the nature of the hazards involved, and how we can prepare for them in such a way so as to minimize the damage and number of casualties.

Prerequisites

There are no prerequisites for this course, although a background in Geol 101 or 102 will be helpful.

Course Logistics

Instructor: Simon Kattenhorn (please call me Simon)

I am an Associate Professor in the Dept. of Geological Sciences. My office is in McClure 303B.

McClure is wheelchair accessible from all entrances and has two elevators (NW and SW corners).
Office hours: Wednesdays from 11.00 a.m. - 12.00 p.m. Please feel free to make an appointment to see me another time if this is not convenient for you, or just stop by my office. The office hours shouldn't be regarded as being exclusively a time to address difficulties you are having with the course. You can use it for general discussion, to borrow materials, or to clarify issues from class.

Office phone: 5-5063 from on campus (else 885-5063). The best time to reach me is during the office hours. I have voice mail - if you would like me to call you back, leave your name, telephone number and a convenient time to call you and I will attempt to return your call ASAP.

Email: simkat@uidaho.edu (this is the most efficient way to get a hold of me).

Mailbox: if you wish to leave items in my mailbox, it is in the room directly opposite the Geological Sciences departmental office (Mines 322).

FAX: you can FAX materials to me at (208) 885-5724. Be sure to include my name on the FAX.

Course Website: http://www.uidaho.edu/~simkat/cors220.html
   From here, you will be able to download any electronic class handouts and to access links to homework assignments, quizzes, news stories, information about natural hazards, daily updates on current earthquake activity around the world, and weekly updates on volcanic activity.

Required textbook: Natural Hazards and Disasters, Second Edition (available in the UI bookstore)
   Donald Hyndman and David Hyndman
   Brooks/Cole – Cengage publishers, 2009

Additional Reading: will be announced in class and on the course website

Assignments and Examinations:

1) In-class discussion and group exercises.
2) Weekly online quizzes posted on Blackboard (www.blackboard.uidaho.edu).
3) Homework assignments (approximately every other week) – will include group exercises.
4) Optional homework assignments - used to replace one low grade in a mandatory homework.
5) Midterm examination on Tuesday, October 21st.
6) Final examination at 8:15 am on Tuesday, December 16th.

Grading

   Quizzes: 25%
   Homework exercises: 25%
   Midterm exam: 25%
   Final exam: 25%
   Bonus: based on attendance, in-class participation effort, and extra-credit options