

Geography 820.01—Mountain Environments
Spring Quarter 2006

Call number: 09602-2

Location: Derby Hall 0155D

Time: TBD Credits: 3-5



Instructor: Bryan G. Mark

Office: 1136 Derby Hall

Telephone: 247-6180. Leave message on my voice mail if I am not there.

Email: mark.9@osu.edu. This is the *best way* to reach me.

Course Description and Goals

This seminar investigates aspects of Mountain Environments from multidisciplinary perspectives. The specific course content will be directed by student interests, who will complete individual case studies. We will survey a number of processes and properties of mountains from both physical and human perspectives (e.g. physical characteristics of mountains, such as steep slopes, climatic extremes, and sharp environmental gradients, and their influences on the ways in which people, animals, and plants interact; physical processes that operate in high-relief environments, including consideration of climate, geomorphology, and biogeography; influence of physical processes in mountain environments on human culture and activities). Particular attention will be paid to the dimensions of changing environmental conditions over time, and the impacts to physical (e.g. climatic, hydrologic, biological, ecological) and human/social (e.g. economic, political, cultural) systems. Some examples & research questions will be developed for the Great Basin National Park, Nevada, USA, in anticipation of a potential interdisciplinary field course with student participation.

No specific background is required or expected; graduate students of all disciplines will be welcomed. A goal of the class is to foster a transdisciplinary forum, where students share ideas and perspectives across traditional disciplinary bounds, to generate new hypotheses and insights into various components of mountain environments.

Class Structure

We will meet 3 hours per week to discuss different topics directed by the interests of the course participants. After an introductory series of lectures-discussions led by the instructor, the class will feature discussions led by students on topics of their choice. Students will pursue topics by selecting papers, leading class discussion, developing and presenting a case-study analysis, and writing a final term paper. The paper will be optional for students taking the class for 3 credits, but will be a good opportunity to develop deeper understanding. The student led discussion will include an instructive presentation to introduce the relevant topic, and give a synopsis of the readings. All students will be responsible for completing the reading, and will submit discussion questions to the instructor before class.

Evaluation

Active involvement in class discussions is essential and expected of all students. Grades will reflect performance in:

1. special topic in-class presentation;
2. paper-discussion leading;
3. final case-study presentation
4. final paper

Expectation

The case-study (and papers) should comprise a critical assessment of an issue related to a specific mountain environment, including the following:

- Geographic setting
- Mountain environment context
- Historical development of issue
- Controversies
- Current state of knowledge
- Outstanding questions
- Future direction

Suggested topics

The range of topics is very wide; here are but a few, in no particular order:

Cultural significance of mountains. Mountains as a resource. Land use and human-land interactions in mountains. Sacredness of mountains. Glaciers as tectonic control. Mountain weather dynamics. Long-term paleoenvironmental archives. Socio-environmental conflict in mountains. Human adaptation to mountains. Water resource changes. Mountains in biogeochemical cycling. Biodiversity and verticality. Impacts of global change on mountain tourism. Avalanches. Glacial lake outburst floods.