

Mountain Geography

Geography 440/640, Mondays

University of Nevada, Reno

Fall Semester 2011

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Office Hours: by appointment

Course Description:

The course will include a discussion of the local, regional (greatest emphasis), and global importance of mountains and high-elevation terrains. We will discuss mountains from the perspective of their genesis, geology and geomorphology, climatology, and their biology (i.e., the plants and animals of mountain and high elevation environments). We will address the dynamics of change through time in these environments during the late Quaternary and the impact of mountain environments upon on people and their activities. We will also review the impact of mountains and high elevation environments as they impact global climates. We will examine the impact of modern human populations upon mountain environments, and the constraints that mountains place upon them which lead to economic, social, and political problems. Finally, we will consider modern climate change and its impact upon mountain environments. This is a course for students who are interested in the physical, and biological processes in high mountain environments, and in human cultural adaptation to these environments. Because my own experience is ecological/ paleoecological with a hint of anthropological, I will be concentrating on those aspects. However, my background includes geology, geomorphology and climatology so we will deal with those aspects a bit more than with others as well.

The course will include field, and class time. Lectures will include formal (I hope interesting and lively) lectures, class discussion and perhaps guest lectures as well. A couple of short (4 or 5 hours each), and one long field trip will provide "hands on" experience for the student of the role of mountain environments through direct observation. Because mountains make their own weather, we will have to be a bit flexible on our field trip day schedules.

There will be a midterm and a final that will cover material from lectures, readings, and field trips. Students taking the course for graduate credit will be expected to conduct an independent research project and present the results in short class presentation at the end of the semester. The

project may deal with research already being conducted by the student, it should however integrate course topics. You may also select a mountain location, analyze the related geographic parameters, and then provide a prognosis for future environmental change. You may include paleoecological analogue data in your prognosis.

Readings include:

Price, Larry W. 1981. Mountains and Man.

Smethurst, David. 2000. Mountain Geography. The American Geographical Society 90 (1):35-56.

Messerli, B. and J. D. Ives (eds.) 1997. Mountains of the World.

There will also be several other short readings that pertain to specific topics.

(All readings will be put into "pdf" format and posted on a website so that they can be downloaded for use.)

Field Trips (all are required):

- 1) The Snake Ranges and Great Basin National Park (four-day field trip that should occur the second week of class from Thursday through Sunday.
- 2) Truckee Meadows and mountains surrounding mountains (Saturday field trip)
- 3) Mount Rose and northern Tahoe Basin (Saturday field trip)

Note all materials will be on WebCt. That includes lectures, readings, field trip materials, etc.