

## Syllabus

### Geology/Physics 410-510, Science and American Society

Fall Semester, 2006, 2 Credits, Thursday nights 7:00 to 9:00 PM,  
Offered by Distance Learning in Pocatello, Blackfoot, Twin Falls, Soda Springs

**Instructor:** Paul Link, ISU Geosciences, 282-3846, Fax 282-4414, [linkpaul@isu.edu](mailto:linkpaul@isu.edu),

**Grader** Joe Larsen, [larsejose@isu.edu](mailto:larsejose@isu.edu)

This class will discuss the role of Science in American history, politics, and education. We will read several types of books and essays dealing with: man's attempts to control Nature by building engineered structures, energy and natural resources, ecological collapse, free-market environmentalism, and Earth history. The idea is to share provocative ideas among students with a wide variety of backgrounds. The greater issue is, how does our education system deal with conflicts put upon it by perceived conflicts between science and American religion and culture.

We will use WebCT for discussion sessions and for homework.

The class is especially recommended for Education majors with specialty areas in Physics, Geology, Chemistry, Biological Sciences and General Science.

There are no formal prerequisites, but the broader one's scientific background the more meaningful the class will be. There is a lot of reading in this class.

**Grading: Undergraduates:** 2 midterm exams @20% each, final exam @30%, question sets on readings @25%; Class participation @ 5%

**Graduate:** 2 midterms @ 15%, final @25 %, Oral presentation (PowerPoint) 30%. question sets @ 10%, Class participation 5%. .

### Reading List

Deffeyes, K.S., 2001, Hubbert's Peak: The Impending World Oil Shortage, Princeton Univ. Press.

Diamond, Jared, 2005, Collapse: How Societies Choose to Fail or Survive, Penguin Books.

McPhee, John, 1989, The Control of Nature. Farrar, Straus, Giroux

### Tentative Schedule:

**Guest Speakers are welcome. If you know of someone who would be interesting, please let me know!!**

Aug. 24 Introduction to class, The Big Picture or Why We are Not Rational!, Science Education in America,

Aug. 31 The Control of Nature, (New Orleans, Katrina), (McPhee; Ch. 1)

Sept. 7 The Control of Nature: Iceland, Los Angeles: (McPhee Ch. 2 and 3).

Sept 14 Where oil comes from (Deffeyes, Ch. 1-6)

Sept. 21 The future of oil (Deffeyes, Ch. 7-9)

Sept. 28 Other energy sources, including hydropower and dams (Deffeyes, Ch. 10) *Guest from Physics?*

### Oct. 5 First exam

Oct. 12 The History of the Earth, Creation, Geologic Time, Evolution, *Trent Stephens, Guest*

Oct. 19 Collapse, Prologue and Chapter 1: Montana

Oct. 26 Discussion of Montana and PERC response

Nov. 2 Collapse Examples of Past and Modern Societies, Ch. 2, 4, 5, 9, 12, 13

Nov. 9 Collapse Practical Lessons. Ch. 14, 15, 16.

### Nov. 16 2<sup>nd</sup> exam

Nov. 25 No Class--Thanksgiving

Nov. 30 Student papers

Dec. 7 Student papers.

### Dec. 16 Final Exam

### Possible Graduate Student Topics for their oral presentations

Katrina effects, aftermath, politics, etc.

History of the Oil Industry (The Prize)

The Oil Industry and American Economic Power (The Prize)

Today's Oil Prices and the Economy (Ford Motor Co. etc).

Alternative Energy Sources (BioDiesel, Hydrogen, etc.)

Global Warming and the U.S. Government

Al Gore's movie An Inconvenient Truth

Michael Crichton's book

Federal Earmarks and the Success of ISU, etc.