ENVS 61: Governing the Environment

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Class periods: MWF 11:15-12:20pm.
Classroom: 008 Fairchild
Office hours: X-hours
X-hours: Tu 12:00-12:50pm. Meetings as needed.
Prerequisites: ENVS 2 or 3 or permission of instructor

Course description and background

The objective of this course is to train you to think critically about a variety of environmental problems. One primary lens through which such problems are frequently analyzed is that of environmental policy. The language of public policy is one way to describe the ways in which human beings organize themselves to affect their own behavior. The concept of public policy is usually associated with a particular, although somewhat vaguely conceived, form of human organization called "the government" which produces such policies, or rules, and applies them to its citizenry.

In this course, we adopt a broader perspective on policy and instead of focusing solely on a "government", focus on "governance" which is the process of affecting human behavior via rules and institutions as conducted by any type of social organization, including those we call governments. This shift in perspective emphasizes that, while many important rules are produced by governments, important governance activities occur at multiple social scales and are conducted by many different types of organizations.

A second implication of the language of public policy that we want to avoid in this class is that policies are technical fixes or interventions that can be applied to ameliorate a problem fairly automatically. Some policy analysis textbooks have a way of implying that this is the case. However, policies and rules instituted by a variety of actors are as often as not a source of environmental problems rather than part of a solution to them.

Learning Goals

The primary goal of this course is to train each student to approach any particular environmental problem and diagnose its main causes, why these are challenging to affect, and use this diagnosis to formulate reasonable and defensible institutional and/or technological prescriptions that may ameliorate the problem. To accomplish this primary goal, there are three main sub-goals, which we will tackle in turn:

1. Understand the historic emphasis on simplification and control that have typified much of the past work in environmental and natural resource governance, and why this approach has often been problematic.

2. Be able to apply a set of diagnostic questions to novel environmental problems you confront.

3. Be able to make defensible institutional prescriptions for a particular environmental problem based on the answers to your diagnostic questions.

Instructional approach and course format

This course is designed to develop your problem-solving skills (or at least your problem-thinking skills) in the arena of environmental governance. As such, we will not entirely follow the standard lecture style for this course, and each Friday class (except for the first Friday) will involve group-based work. Groups will initially be formed during the first week of class. Every two weeks, new groups will be formed. Each week (except the first one) will proceed as follows:

Monday: Standard lecture. Discussion and clarifying questions on the week's primary reading.

Tuesday: X-hour classes to fill in for missed days as needed. These are indicated on the schedule.

Wednesday: Comprehension. Individual quizzes are taken on the material assigned (for Monday and Wednesday of) that week, followed by a group discussion of the responses and correct answers. Some lecture to prepare for Friday application activities will also be included.

Friday: Application of materials. The members of each group work together to respond to one or more open-ended questions. These are to be posted to blackboard by the end of the class period.

Readings

The readings will be taken from several articles, books and websites. The articles and several book chapters are available via the Kresge library website, a link to which is included on Blackboard. The following six books will be available in the bookstore.

Fitzgerald, D. 2003. *Every Farm a Factory: The Industrial Ideal in American Agriculture*. New Haven, CT: Yale University Press.

Langston, Nancy. 1995. *Forest Dreams, Forest Nightmares*. Seattle, WA: University of Washington Press.

McPhee, John. 1989. *The Control of Nature*. New York, NY: Farrar, Straus and Giroux.

Reisner, M. 1986. *Cadillac Desert: The American West and Its Disappearing Water.* New York, NY: Penguin Books.

Scott, James. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed.* New Haven, CT: Yale University Press.

Thaler, R. and Sunstein, C. 2008. *Nudge: Improving Decisions about Health, Wealth, and Happiness.* New Haven, CT: Yale University Press.

Assignments and grading

Quizzes: 14%

These will be taken each Wednesday at the beginning of class. They will consist of 5+ multiple-choice questions, and/or a short answer question. Make-up quizzes (for excused absences) will take the form of brief oral examinations. Each quiz counts for 2% of your grade, with the lowest quiz grade dropped.

Group responses to open-ended questions: 28%

These responses will be written (typed) and turned in via Blackboard during Friday class periods. You are allowed to refer back to any of the assigned reading materials, or other materials, during this group work. Referencing materials other than what is assigned for class is welcome for these responses, but not required. Group members who do not attend a Friday class period will not receive credit for the group work. Each response counts for 4% of your grade, with the lowest response grade dropped.

Class participation: 8%

In addition to preparing for quizzes and group work on Wednesday and Fridays, in general I expect you to come to class and participate in the discussions that are had each day. Full credit for this component means that you come to class every day and engage with the instructor as well as with other students.

Take-home midterm: 25%

The course is broken up into two units. The first unit will conclude with a take-home exam. These are to be printed out and turned in at the ENVS main room (Steele 113). The hand-out and due dates are indicated on the schedule.

Final exam: 25%

The second unit will conclude with a take-home final. This will be a cumulative final. These are to be printed out and turned in at the ENVS main room (Steele 113). The hand-out and due dates are indicated on the schedule.

Course policies

Academic honor: The Dartmouth Academic Honor Principle applies in this class (see http://www.dartmouth.edu/~uja/honor/). Students are expected to conduct their own work for the individual quizzes and class papers. Teams and students are free to discuss outside of class the material that they will be examined on during Wednesday and Friday class periods. Friday responses must be written in class and not beforehand.

Student Needs: Students with disabilities enrolled in this course and who may need disability-related classroom accommodations are encouraged to make an appointment to see me before the end of the second week of the term. All discussions will remain confidential, although the Student Accessibility Services office may be consulted to discuss appropriate implementation of any accommodation requested.

Religious observances: I realize that some students may wish to take part in religious observances that occur during this academic term. Should a religious observance conflict with your participation in the course, please come speak with me before the end of the second week of the term to discuss appropriate accommodations.

Course Schedule (assigned readings subject to change)

Unit one: the approach of simplification and control

September 16: Course introduction

September 18: The tragedy of the commons

Hardin, G. 1968. The tragedy of the commons. *Science* 162(3859): 1243-1248.

September 20: Background on the control approach to environmental policy and management

Holling, C.S. and Meffe, G. 1996. Command control and the pathology of natural resource management. *Conservation Biology* 10(2).

Scott, J. Introduction.

Kristof, N. 2012. A failed experiment. New York Times, November 21

September 23, 25: Controlling water

McPhee, J. Chapter one.

Madrigal, A. 2011. What we've done to the Mississippi river: an explainer. *The Atlantic*, May 19, 2011.

September 27: Application of "controlling water" materials

Reisner, M. Chapters three (First Causes), five (The Go-Go Years), and six (Rivals in Crime)

September 30, October 2: Scientific forestry

Scott, J. Chapter one

October 4: Application of "scientific forestry" materials

Langston, N. Chapters one (Introduction), four (The Feds in the Forests) and five (Silvics in the Blues)

October 7, 9: Control in agriculture

Scott, chapter eight

Take-home midterm 1 handed out on Monday October 7. DUE by 4pm on Monday, October 14

October 11: Application of "control in agriculture" materials

Fitzgerald, chapters one (The Industrial Ideal in American Agriculture), two (By the Numbers) and three (Agricultural Engineers and Industrialization)

Wilson, C. and Tisdell, C. 2001. Why farmers continue to use pesticides despite environmental, health and sustainability costs. Ecological Economics 39(3): 449-462.

Unit two: an alternative approach

October 14, 15 (X-hour): Human behavior and environmental policy

Heinin, J.T. and Low, B.S. 1992. Human behavioural ecology and environmental conservation. *Environmental Conservation* 19(2): 105-116.

Thaler and Sunstein. Introduction, Chapters 1 and 3

October 16: Application of "behavioral" materials

Thaler and Sunstein, Chapters 4 and 5

October 21, 23: Responses to environmental problems

Meadows, D. 2009. Leverage points: places to intervene in a system. *Solutions* 1(1): 41-49.

Cox, M. 2013. Taxonomy of environmental policies and strategies

October 25: Application of "responses" materials.

Thaler and Sunstein, Chapter 12

October 28, 29 (X-hour): Climate change

Specter, M. 2012. The climate fixers. *New Yorker*, May 14, 2012.

Long, J. and Winickoff, D. 2010. Geoengineering technologies. *Solutions* 1(5)

Unruh, G. 2000. Understanding carbon lock-in. *Energy Policy* 28.

October 30: Application of "climate change" materials

No reading assigned.

November 4, 6: Land tenure, deforestation, and REDD+

Background on the UNFCCC: The international response to climate change:
http://unfccc.int/essential_background/items/6031.php

Getting REDD+ to work
http://www.youtube.com/watch?v=h2ZlvTsA-UY

(Notice, this video is produced by CIFOR, which has its own Youtube channel:
http://www.youtube.com/user/CIFORVideo?feature=watch)

Better REDD than dead. *The Economist*, September 23rd, 2010.

November 8: Application of "land tenure/REDD" materials

REDD-plus explained

http://www.iucn.org/about/work/programmes/forest/fp_our_work/fp_our_work_thematic/redd/redd_plus_explained/

Cotula, L., and Mayers, J. 2009. Tenure in REDD: Start-point or afterthought? *International Institute for Environment and Development*.

Take-home final handed out on Monday, November 11. DUE by 4pm on Thursday, November 21

November 11, 13 Energy policy and hydraulic fracturing

Kolbert, E. 2011. Burning love. *The New Yorker* December 5, 2011.

Boersma, T. and Johnson, C. 2012. The shale gas revolution: U.S. and EU policy and research agendas. *Review of Policy Research* 29(4): 570-576.

November 15: Application of "hydraulic fracturing" materials

Friedman, T. 2012. Get it right on gas. *The New York Times* August 4, 2012.

Urbina, I. 2011. Pressure limits efforts to police drilling for gas. *The New York Times* March 3, 2011.

November 18: Final exam Q&A