

ECOE 70311: Environmental Economics I

Fall 2008

Professor Jensen

Office: 435 Flanner

Office Hours: Wednesday, or by appointment.

Optional Texts: Handbook of Environmental Economics: Vol.s 1-3, Mäler and Vincent, eds. (2003-2005 Elsevier)

Course Description and Objectives:

This course provides an in-depth introduction to some of the topics and techniques of environmental economics: the economics of renewable, non-renewable, and common property natural resources; pollution abatement policies; welfare theory and evaluation; stated and revealed preference methods of valuing environmental goods; and international issues such as the pollution haven hypothesis, global warming, and transboundary pollution.

This course has one primary objective: to provide you with a working knowledge of some of the research topics in environmental economics that is sufficient to allow you not only to read current research on these topics, as published in leading journals of the discipline, but also to contribute to these journals.

Course Requirements:

1. 75% of your grade will be determined by 5 problem sets.
 - a. I will distribute them at least two weeks ahead of the due date. Any problem set turned in after the due date will be graded, but will receive a maximum of only one-half credit. I am willing to allow an extension of the due date if there is a good reason to do so. However, the maximum extension allowable is 1 week. (Given the importance of prompt feedback to learning in any course, it is essential to return graded problem sets as soon as possible. This policy allows me to return problems sets within 1 week to students who turn them in on time.)
 - b. I encourage you to work together on the problem sets. They tend to be complex, so comparing your results to others is a good way to check for computational and/or algebraic errors. In fact, if you like, any combination of you can form a "team" and turn in one problem set with several names on it (in which case all team members receive the same grade on that problem set).
2. 25% of your grade will be determined by your choice of the following options.
 - a. Take a final exam.
 - b. Write a paper that develops a model and outlines how to analyze it to derive some results of interest to environmental economists. This would probably need to be about 10 to 15 pages (double-spaced). If you decide to do this, you will need to get the topic approved by me. This is an option you would generally take only if you were thinking of a second-year paper or dissertation in this area.

Approximate Course Outline:

(I say approximate because the pace depends on how quickly we cover material.)

I. Natural and Common-Property Resources

A. Oldies but Goodies

Hotelling, Harold, "The Economics of Exhaustible Resources," *Journal of Political Economy*, April 1931, 137-175.

Gordon, H. Scott, "The Economic Theory of a Common-Property Resource: The Fishery," *Journal of Political Economy*, April 1954, 124-142.

Smith, Vernon L., "Economics of Production from Natural Resources," *American Economic Review*, June 1968, 409-431.

Smith, Vernon L., "On Models of Commercial Fishing," *Journal of Political Economy*, March/April 1968, 181-198.

B. Current Work

Starrett, David A., "Property Rights, Public Goods, and the Environment," *Handbook of Environmental Economics*, Ch. 4.

Baland, Jean-Marie and Jean-Philippe Platteau, "Economics of Common Property Management Regimes," *Handbook of Environmental Economics*, Ch. 5.

Sethi, Rajiv and E. Somanathan, "The Evolution of Social Norms in Common Property Resource Use," *American Economic Review*, Sept. 1996, 766-788.

II. Pollution and Pollution Abatement

The Theory of Pollution Policy," *Handbook of Environmental Economics*, Ch. 6.

Krutilla, John V., "Conservation Reconsidered." *American Economic Review*, September 1967, 777-786.

Chambers, Paul E. and Richard A. Jensen, "Transboundary Air Pollution, Environmental Aid, and Political Uncertainty," *Journal of Environmental Economics and Management*, January 2002, 93-112.

III. Valuing the Environment

Bockstael, Nancy E. and A. Myrick Freeman, "Welfare Theory and the Environment," *Handbook of Environmental Economics*, Ch. 12.

Phaneuf, Daniel and V. Kerry Smith, "Recreation Demand Models," *Handbook of Environmental Economics*, Ch. 15.

Brox, James A. and Ramesh C. Kumar, "Valuing Campsite Characteristics: A Generalized Travel-cost Model of Demand for Recreational Camping," *Environmetrics*, 1997, 87-106.

Palmquist, Raymond B., "Property Value Models," *Handbook of Environmental Economics*, Ch. 16.

Rosen, Sherwin, "Hedonic Prices and Implicit Markets," *Journal of Political Economy*, January 1974, 34-55.

Harrison, Jr., David and Daniel L. Rubinfeld, "Hedonic Pricing and the Demand for Clean Air," *Journal of Environmental Economics and Management*, January 1978, 81-102.

Carson, Richard T. and W. Michael Hanemann, "Contingent Valuation," *Handbook of Environmental Economics*, Ch. 17.

Chambers, Catherine M. and John C. Whitehead, "A Contingent Valuation Estimate of the Benefits of Wolves in Minnesota," *Environmental and Resource Economics*, 2003, 249-267.

Chambers, Paul E., John Crooker, and Richard A. Jensen, "Religiosity, Property Rights and Rainforest Preservation, mimeo, University of Notre Dame, 2007.

IV. International Environmental Issues

Copeland, Brian R. and M. Scott Taylor, "Trade, Growth, and the Environment," *Journal of Economic Literature*, March 2004, 7-71.

Levinson, Arik and M. Scott Taylor, "Unmasking the Pollution Haven Effect," mimeo, Georgetown University, 2006.

Rauscher, Michael, "International Trade, Foreign Investment, and the Environment," *Handbook of Environmental Economics*, Ch. 27.

Barrett, Scott, "The Theory of International Cooperation," *Handbook of Environmental Economics*, Ch. 28.

Kolstad, Charles D. and Michael Toman, "The Economics of Climate Change," *Handbook of Environmental Economics*, Ch. 30.

Holtz-Eakin, Douglas and Thomas M. Selden, "Stoking the fires? CO₂ emissions and economic growth," *Journal of Public Economics*, May 1995, 85-101.