

Objectives of the Course: This course examines how markets allocate resources and discusses the appropriate role of government when markets “poorly” allocate. This is actually one of two courses on how economists view our natural environment: the one about *bunnies*, i.e. Natural Resource Economics, considers whether markets are efficient in allocating renewable and non-renewable resources: Are we over fishing salmon? Are we destroying too much natural habitat?; the other, about *gunk*, i.e. Environmental Economics, examines how the natural environment is affected by the production and consumption of goods: How should emissions of sulphur dioxide from power plants be controlled? What is the “optimal” amount of arsenic in drinking water?

This is an *economics* class. Its main purpose is to show how economists view environmental problems and look at the kinds of solutions they propose. Because economists think in a manner consistent with the existence of scarcity, economists are increasingly influential in formulating environmental policy. ECON 152 is a prerequisite; we will use theoretical tools developed in that class. We will also learn some new theory along the way. The emphasis in this class will be on the *application* of economic theory to environmental issues.

Required Texts: *Environmental Economics* by Charles D. Kolstad (CK)
Eco-nomics by Richard L. Stroup (AL)
Other *required* readings will be handed out in class or put on reserve.

Office Hours: You are encouraged to ask questions during and after class. If you want to speak with me at length or need assistance, I am usually available in my office, Comenius Hall 207, from 3:30 – 5:30 on Tuesdays; 2:00 – 4:00 on Wednesdays; and by appointment. Set up an appointment by calling (625.7101) or emailing (preferred) me. I will work around your schedule.

Celebrations of Learning, Pre-Parties / Home Excitements, Exposition, and Blogging: There will be three in-term Celebrations of Learning and one Ultimate Exposition and Report, which will account for 70% of your grade. The weights are as follows:

<u>THE MOST EXCELLENT CLASS ACTIVITIES</u>	<u>WEIGHT</u>
In Class Pre-Parties / Home Excitements	15%
First Celebration of Learning	20%
Second Celebration of Learning	20%
Third Celebration of Learning	20%
Ultimate Exposition and Report	25%

Celebrations of Learning: There will be three in-term Celebrations of Learning. These Celebrations will consist of multiple-choice, short answer, and essay questions. All Celebrations will be cumulative and comprehensive, with emphasis placed on the material presented after the previous Celebration. ***No make-ups for the in-term Celebrations will be given.*** If you miss one in-term Celebration, its weight will automatically shift to the other Celebrations, at no penalty to you. ***No Celebration of Learning grades will be dropped.*** If you choose to participate in a Celebration of Learning, the grade you receive will become part of your average for the class. If you miss more than one in-term Celebration, I reserve the right to either give you a zero on one or both missed Celebrations, or require additional work from you.

In Class Pre-Parties/ Home Excitements: represent 15% of your grade. These assignments will consist of essay and short answer questions that reinforce the topics discussed in class. ***Absolutely NO late Home Excitements will be accepted.***

Ultimate Exposition and Report: Throughout the semester our class will be collecting data on the greenhouse gas emissions of Moravian College. This greenhouse gas inventory will focus on four main sources of greenhouse emissions: Waste; Heating and Cooking Oil; Electricity; and Fleet Gasoline and Diesel Use. I will assign students to groups during the second week of class. Your group will develop an executive report (10 pages) and give a presentation during the last 4 days of class. The exposition grade will be based on the report, the clarity of the class presentation, and the presenter’s ability to answer questions from the class. More information will be provided the second week of class.

Grading: Academic regulations and procedures as found in the *Moravian Catalog* govern all grading and academic policies. Because each class and assignment is unique, the grading scale may vary. This is a rough idea of the scale you can expect:

85 - 100 = A 70 – 84 = B 55 – 69 = C 45 – 54 = D < 45 = F

The actual grading scale will be determined only at the end of the semester.

Grade Appeals: Any course grade dispute must be initiated in accordance with College and Department policies.

Attendance: If I plan to give a worthless lecture, I will cancel class. Attendance is not required, though highly recommended. If you are consistently absent from class without sufficient reason, you sacrifice your office hours privileges. Initially, I will take role as an inexpensive way to learn your names. If I am late, please wait 10 minutes before leaving the classroom. Please switch all phones and pagers to vibrate. If you are late, minimize your disturbance.

Students with Disabilities: As a Faculty member at Moravian College I will make every reasonable effort to accommodate the unique and special needs of students with respect to speech, hearing, vision, seating, or other possible disabilities. During the first week of class please contact me if you require special accommodations and I, along with representatives from the Counseling Center, will work with you.

Academic Integrity: Academic dishonesty will be treated per the stated regulations in the *Moravian Student Handbook*. All work must be your own or the groups own as it pertains to Home Excitements done by a group. It is your responsibility to ensure that you are not in conflict with the stated regulations.

I reserve the right to make adjustments to the syllabus at any time during the course.

Week	Readings	Assignment
8-Feb	1-4	Celebration of Learning #1
15-Mar	5-11	Celebration of Learning #2
12-Apr	12-18	Celebration of Learning #3
17-Apr		Presentation # 1
		Presentation # 2
24-Apr		Presentation # 3
		Presentation # 4; Expositions Due

1. Introduction: The Role of Government

Kolstad, Chapters 1, 2

* Oates, Wallace E., ed. "Introduction: An Economic Perspective on Environmental and Resource Management." (<http://www.rff.org/rff/Documents/RFF-Resources-137.pdf>)

2. Economic Efficiency and Benefit-Cost Analysis

Kostad, Chapters 3 and 4

* Arrow, Kenneth, et al, "Is there a Role for Benefit-Cost Analysis in Environmental Health, and Safety Regulation?" *Science*, April 12, 1996

* Farrow, Scott and Michael Toman. March, 1999. "Using Benefit-Cost Analysis to Improve Environmental Regulation." (<http://www.rff.org/Documents/RFF-DP-99-11.pdf>).

Solow, Robert M. "Sustainability: An Economist's Perspective," Lecture to the Marine Policy Center, Woods Hole Oceanographic Institution, Woods Hole, MA, June 14, 1991

Viscusi, W. Kip, "Regulating the Regulators," *University of Chicago Law Review*, 63, 1996, 1423-61

* "What Price Posterity," *Economist* March 23, 1991

* "Creating Incentives," *Economist*, May 29, 1993

3. Public Goods and Externalities

Kolstad, Chapters 5, 6

* Coase, Ronald H. "The Problem of Social Cost," *The Journal of Law and Economics*, 3, October 1960, 1-44

4. The Optimal Regulation of Pollution

Kostad, Chapters 7, 8, 9, 10, 11

Choice of Policy Instruments

Barthold, Thomas A., "Issues in the Design of Environmental Excise Taxes," *Journal of Economic Perspectives*, 8 (1), Winter 1994, 133-51.

Cohen, Mark A. 1998. "Monitoring and Enforcement of Environmental Policy." mimeograph, Vanderbilt University. (<http://sitemason.vanderbilt.edu/files/dbRqyQ/monitoring%20and%20enforcement%20working%20paper1.pdf>).

* Fullerton, Don and Thomas C. Kinnaman, "Household Response to Pricing Garbage by the Bag." *American Economic Review*, 86 (4), September 1996, 971-84.

* Fullerton, Don and Sarah West. "Tax and Subsidy Combinations for the Control of Car Pollution." NBER Working Paper #7774, (<http://www.macalester.edu/%7Ewests/nber7774.pdf>).

* Pizer, Billy. 1999. "Choosing Price or Quantity Controls for Greenhouse Gases," RFF Policy Brief #17 (<http://www.rff.org/rff/Documents/RFF-CCIB-17.pdf>)

* Sandel, Michael J. "It's Immoral to Buy the Right to Pollute," *New York Times*, Dec. 15, 1997, p. A29

* Tietenberg, Thomas H., "Economic Instruments for Environmental Regulation," *Oxford Review of Economic Policy*, 6(1), March 1990, 17-33

“Clean and Green, or Lean and Mean?,” *Economist* June 28, 1997.

* William D. Nordhaus, “Reflections on the Economics of Global Climate Change,” *Journal of Economic Perspectives*, Fall 1993

The SO₂ Experiments

* Schmalensee, et al.. “An Interim Evaluation of Sulfur Dioxide Emissions Trading”, *Journal of Economics Perspectives*, 12 (3), Summer 1998, 53-68

* Stavins, Robert N. “What Can We Learn from the Grand Policy Experiment? Lessons from SO₂ Allowance Trading”, *Journal of Economics Perspectives*, 12 (3), Summer 1998, 69-88

5. Risk, Uncertainty, and Liability

Kolstad, Chapters 12

6. International and Interregional Competition: Is there a Race to the Bottom? Is there an Income Effect?

Kolstad, parts of Chapter 13

* Oates, Wallace E. and Robert M. Schwab, “Economic Competition Among Jurisdictions: Efficiency Enhancing or Distortion Inducing?” *Journal of Public Economics*, 35 (3), April 1988, 333-354.

Do Environmental Regulations Retard Local Economic Activity?

* Becker, Randy and Vernon Henderson. 2000. “Effects of Air Quality Regulations on Polluting Industries,” *Journal of Political Economy*, 108: 379-421.

* Henderson, J. Vernon. 1996. “Effects of Air Quality Regulation,” *American Economic Review*, 86: 789-813.

Environmental Kuznets Curves

* Grossman, Gene and Alan Krueger. 1995. “Economic Growth and the Environment,” *Quarterly Journal of Economics*, 110(2): 353-377.

Does Trade Harm the Environment?

* Bhagwati, Jagdish and Herman Daly, “Debate: Does Free Trade harm the Environment?” *Scientific American*, pp 41-57 (Nov. 1993).

Sanger, David E., “Trade Group Orders U.S. to Alter Law for First Time,” *New York Times*, January 18, 1996.

* Antweiler, Werner, Brian R. Copeland and M. Scott Taylor. “Is Free Trade Good For The Environment?,” *American Economic Review*, 2001, v91(4,Sep), 877-908

7. The Costs of Environmental Regulations

Kolstad, Chapter 14

Productivity Growth/Porter Hypothesis

Porter, Michael E. and Class Van der Linde. Fall 1995. “Toward a New Conception of the Environment-Competitiveness Relationship,” *Journal of Economic Perspectives*, 9 (4): 97-118

* Palmer, Karen, Wallace E. Oates, and Paul R. Portney. Fall 1995. “Tightening Environmental Standards: The Benefit-Cost or the No-Cost Paradigm?” *Journal of Economic Perspectives*, 9 (4): 119-32.

Green National Accounting

“An Invaluable Environment,” *Economist* April 18, 1998.

* Hecht, Joy. Spring 1999. “Environmental Accounting: Where we are now, Where we are heading,” *Resources*, 135: 14-17. (published by Resource for the Future)

The Double Dividend Hypothesis

* Goulder, Lawrence H. 1998. “Environmental Policy Making in a Second-Best Setting,” *Journal of Applied Economics*, 1 (2)

Morgenstern, Richard D. April 1996. “Environmental Taxes: Is There a Double Dividend?” *Environment*, 38 (3): 16-20, 32-4.

* Passell, Peter. “When the Benefits are Mostly Modest, What Price Clean Air?,” *New York Times*, April 3, 1997.

8. The Measurement of Benefits

Kolstad, Chapter 15

* Smith, V. Kerry. February 1993. “Nonmarket Valuation of Environmental Resources: An Interpretive Appraisal.” *Land Economics*, 69 (1); 1-26.

* “Treasuring the Environment,” *Economist* March 3, 1990.

* “A Price on the Priceless?” *Economist* August 17, 1991.

Hedonic Price Indices

Kolstad, Chapter 16

Ashenfelter, Orley and Michael Greenstone 2001. “Using Mandated Speed Limits to Measure the Value of a Statistical Life: Evidence from the Introduction of the 65-mph Speed Limit on Rural Interstates,” mimeograph, University of Chicago. (available at <http://www.feem.it/NR/rdonlyres/0341504F-C6EE-455A-8A42-C09E7FC3AAB3/367/6502.pdf>)

Viscusi, W. Kip. 1993. “The Value of Risks to Life and Health.” *Journal of Economic Literature*, 31: 1912-1946.

Household Production

Kolstad, Chapter 17

Dickie, Mark and Shelby Gerking. July 1991. “Willingness to Pay for Ozone Control: Inferences from the Demand for Medical Care,” *Journal of Environmental Economics and Management*, 21 (1): 1-16.

Contingent Valuation

Kolstad, Chapter 18

Portney, Paul R., “The Contingent Valuation Debate: Why Economists Should Care,” *Journal of Economic Perspectives*, 8 (4), Fall 1994, 3-17

* Diamond, Peter A., and Jerry A. Hausman, “Contingent Valuation: Is Some Number Better than No Number?,” *Journal of Economic Perspectives*, 8 (4), Fall 1994, 45-64

“The Price of Imagining Arden,” *Economist*, December 3, 1994.