

Environmental Economics and Policy

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Course

Objectives: This course introduces you to economic perspectives on modern environmental issues. We will study economic theories related to natural resources, with an emphasis on the strengths and weaknesses of alternative viewpoints. You will learn that economic objectives do not necessarily conflict with environmental goals, and that markets can be harnessed to improve environmental quality. We will also discuss the limitations of economic analysis to provide policy guidance on environmental issues.

While the first half of the course will focus on concepts and theory, the second half will shift to applications including renewable and non-renewable resources, pollution, global climate change, international trade, and environmental politics. My aspiration is that by the end of the course, you will be able to express an informed view regarding the potential of economics to help societies achieve their environmental goals.

Course

Prerequisites: The listed prerequisite for EC 30 is Economics 5 (Principles of Economics). While background in introductory microeconomics is desirable, you are welcome to enroll in the course without any economics background with the realization that you may need to spend some time learning the necessary background material. For my part, I will be happy to provide assistance outside of the normal course times, either for individual students or by scheduling additional time for remedial classes. If you have any questions about the requirements and expectations for the course, please do not hesitate to contact me.

Course

Materials: The primary text for the course is:

Environmental and Natural Resource Economics: A Contemporary Approach, Second Edition by Jonathan M. Harris, Houghton-Mifflin (2006)

There will also be a reading packet for the course. Both the text and the readings are required for all students.

Grading:

Your grade in EC 30 will be determined by four different factors. To an extent, you will get to determine how your grade will be calculated. I totally understand that some students perform well on in-class tests while others are more comfortable with problem sets and class participation. By May 21, all students must submit their preferences regarding their grading allocation subject to the following parameters:

Exams (one mid-term and one final)	20%-40%
Homeworks (three homework assignments)	20%-35%
Group project	15%-30%
Class participation	10%-20%

Of course, your total allocation must sum to 100% and no changes to your allocation are permitted beyond May 21.

We will have two exams (a mid-term and a final). The final will not be cumulative but realize that concepts from the first half of the course may be needed to do well on the final.

Three homeworks will be assigned during the course. The homeworks will include selected questions from the textbook as well as additional questions. The homeworks will include both quantitative questions with “correct” answers as well as essay questions asking you to describe economic concepts or present informed opinions.

A group project will be assigned during the course. Each group will give a 10-15 minute presentation followed by an open discussion. The group project also involves submitting a short paper. The project will be discussed in more detail early in the course. Class participation includes questions and comments during, and outside of, class meetings. While attendance will not be taken every class, regular class attendance is part of your class participation grade.

Student
Needs:

Any student with a disability or individual needs will be accommodated to every extent feasible. Please discuss any such issues with me as soon as possible.

Preliminary Course Schedule

The class will meet three times per week: one short meeting and two longer meetings. The longer classes are divided into two sessions in the schedule below.

Session	Topic	Readings
Wed., May 13	Mini-class	None
#1: Thurs., May 14	Overview of environmental and ecological economics	Harris, Ch. 1; Reading #1
#2: Fri., May 15	Overview of environmental issues	Harris, Ch. 2; Reading #2
#3: Fri., May 15	Concepts of ecological economics	Harris, Ch. 7
#4: Mon., May 18	National income and environmental accounting	Harris, Ch. 8; Readings #3-4
#5: Mon., May 18	Economic perspectives on the environment	Readings #5-8
#6: Thurs., May 21	Environmental externalities	Harris, Ch. 3
#7: Fri., May 22	Environmental externalities (continued)	Harris, Ch. 3
#8: Fri., May 22	Environmental valuation	Harris, Ch. 6
#9: Mon., May 25	Environmental valuation	Harris, Ch. 6; Reading #9
#10: Mon., May 25	Resource allocation over time	Harris, Ch. 5
#11: Thurs., May 28	Test #1	
#12: Fri., May 29	Common property and public goods	Harris, Ch. 4
#13: Fri., May 29	Managing renewable resources	Harris, Ch. 15
#14: Mon., June 1	Economy/environment interactions	Readings #10-12
#15: Mon., June 1	Energy and the environment	Harris, Ch. 13
#16: Thurs., June 4	Global climate change	Reading #13
#17: Fri., June 5	Global climate change (continued)	Readings #13-15
#18: Fri., June 5	Climate change policies	Readings #16-18
#19: Mon., June 8	Pollution analysis and policy	Harris, Ch. 16
#20: Mon., June 8	Movie	
#21: Wed., June 10	Presentations	
#22: Wed., June 10	Environmental regulation	Readings #19-20
#23: Thurs., June 11	Presentations	
#24: Mon., June 15	Presentations	
#25: Mon., June 15	Trade and the environment	Harris, Ch. 19
#26: Thurs., June 18	Consumption, poverty, environment	Readings #21-23
#27: Fri., June 19	Consumption, poverty, environment	Readings # 24-25
#28: Fri., June 19	Institutions for sustainable development	Harris, Ch. 20
#29: Mon., June 22	Sustainable development	Readings #26-27
#30: Mon., June 22	Wrap-up and review	

Environmental Economics and Policy (EC30)
Reading List

Session 1 – Overview of Environmental and Ecological Economics

1. The Lorax, Dr. Suess.

Session 2 – Overview of Environmental Issues

2. “Global Overview,” Chapter 1 of UNEP Yearbook 2008: An Overview of Our Changing Environment, United Nations Environment Programme (p. 4-13).

Session 4 – National Income and Environmental Accounting

3. “The Genuine Progress Indicator 2006: A Tool for Sustainable Development,” John Talberth, Clifford Cobb, and Noah Slattery, *Redefining Progress* (p. 1-8; 21-24).
4. “The (un)Happy Planet Index,” Friends of the Earth and New Economics Foundation, 2006 (p. 7-14; 18-21).

Session 5 – Economic Perspectives on the Environment

5. “How Economists See the Environment,” Don Fullerton and Robert Stavins, Chapter 1 of Economics of the Environment: Selected Readings, edited by Robert Stavins (p. 3-8).
6. “Earth in the Balance Sheet: Economists Go for the Green,” Paul Krugman, *Slate*, April 17, 1997.
7. “Sustainability: An Economist’s Perspective,” Robert Solow, Chapter 5 of Economics of the Environment: Selected Readings, edited by Robert Stavins (p. 131-138).
8. “Buddhist Economics,” E.F. Schumacher, Chapter 4 of Small Is Beautiful (p. 56-66).

Session 9 – Environmental Valuation

9. “Natural Resources: Assessing Nonmarket Values through Contingent Valuation,” Joseph Breedlove, Congressional Research Service Report for Congress, RL30242.

Session 14 – Economy/Environment Interactions

10. “Environmental Protection: Is It Bad for the Economy?” Frank Arnold, Paper prepared under EPA Cooperative Agreement CR822795-01.
11. “The Contribution of Good Environmental Regulation to Competitiveness,” paper by the Network of Heads of European Environment Protection Agencies, November 2005.
12. “A Global Green New Deal” (Executive Summary), Edward Barbier, United Nations Environment Programme, Economics and Trade Branch.

Session 17 – Global Climate Change

13. “The Economics of Global Climate Change,” Jonathan Harris and Brian Roach, 2007.
14. “Stern Review on the Economics of Climate Change: Executive Summary (Short),” HM Treasury (UK), 2006.
15. “Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?” (Executive Summary), Creyts, et al., McKinsey and Company, December 2007.

Session 18 – Global Climate Change Policies

16. “The Green Employment Tax Swap: Using a Carbon Tax to Finance Payroll Tax Relief,” Gilbert E. Metcalf, The Brookings Institution/World Resources Institute Policy Brief, June 2007.
17. “Creating an Earth Atmospheric Trust: A System to Control Climate Change and Reduce Poverty,” Peter Barnes, et al., January 2008.
18. “The Right to Development in a Climate Constrained World: The Greenhouse Development Rights Framework,” Paul Baer, et al., Second Edition Executive Summary, September 2008.

Session 22 – Environmental Regulation

19. “An Overview of Environmental Legislation,” Eban Goodstein, Chapter 13 of Economics and the Environment (p. 250-269).
20. “The Regulatory Record: Achievement and Obstacles,” Eban Goodstein, Chapter 14 of Economics and the Environment (p. 270-283).

Session 26 – Consumption, Poverty, Environment

21. “The Environmental Costs of Consumption,” Alan Durning, Chapter 4 of How Much Is Enough? (p. 43-61).
22. “Is More Really Better? Consumption and Welfare,” Eban Goodstein, Chapter 11 of Economics and the Environment (p. 210-226).
23. “An Environmentalist’s Perspective on Consumer Society,” Alan Durning, Chapter 5 of Consumer Society in American History: A Reader (p. 78-81).

Session 27 – Consumption, Poverty, Environment

24. “The Challenge of Sustainable Lifestyles,” Tim Jackson, Chapter 4 of 2008 State of the World: Innovations for a Sustainable Economy (p. 45-60).
25. “Poverty, Inequality, and Sustainability,” Brian Roach.

Session 29 – Sustainable Development

26. “The End of Economic Growth,” Charles Siegel, Preservation Institute, 2006 (p. 33-45).
27. “The Steady-State Economy: Toward a Political Economy of Biophysical Equilibrium and Moral Growth,” Herman Daly, Chapter 19 of Valuing the Earth, edited by Herman Daly and Kenneth Townsend (p. 325-363).