

EC 30: 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 contribution of economics towards achieving environmental goals.

Course

Prerequisites: The listed prerequisite for EC 30 is Economics 1 (Principles of Microeconomics). 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 expend some effort to learn 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 three 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 25, all students must submit their preferences regarding their grading allocation subject to the following parameters:

| | |
|---------------------------------------|---------|
| Exams (one mid-term and one final) | 35%-60% |
| Homeworks (two homework assignments) | 20%-35% |
| Group project and class participation | 15%-35% |

Of course, your total allocation must sum to 100% and no changes to your allocation are permitted beyond May 25.

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 score well on the final.

Two 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. Class participation includes questions and comments during class meetings. These activities will be discussed in more detail at the beginning of the course.

Course

Contract:

All students are required to sign a contract indicating their responsibilities for the course. This contract lists the expectations of all students regarding preparedness, participation, and personal conduct. The contract also details my commitment towards the course on similar issues. Students are welcome to make changes to their contracts but please

discuss any changes with me beforehand. All contracts must be completed by May 25.

**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.

Course Schedule (subject to revision)

Course meetings are scheduled for Mondays (8:45-11:30), Tuesdays (3:00-5:25), and Thursdays (11:40-12:55). The longer meetings on Mondays and Tuesdays are broken into two periods in the schedule below.

| Date | Topic | Readings |
|--------------------|--|---------------------------------|
| Wed., May 17 | Mini-class | None |
| Th., May 18 | Overview of environmental and ecological economics | Harris, Ch. 1; Reading #1 |
| Mon., May 22 (I) | Overview of environmental issues | Harris, Ch. 2; Reading #2 |
| Mon., May 22 (II) | Concepts of ecological economics | Harris, Ch. 7 |
| Tu., May 23 (I) | National income and environmental accounting | Harris, Ch. 8; Readings #3-4 |
| Tu., May 23 (II) | Movie | |
| Th., May 25 | Economic perspectives on the environment | Readings #5-8 |
| Mon., May 29 (I) | Environmental externalities | Harris, Ch. 3 |
| Mon., May 29 (II) | Environmental externalities (continued) | Harris, Ch. 3 |
| Tu., May 30 (I) | Environmental valuation | Harris, Ch. 6 |
| Tu., May 30 (II) | Environmental valuation (continued) | Harris, Ch. 6 |
| Th., June 1 | Contingent valuation and discounting | Readings #9-11 |
| Mon. June 5 (I) | Resource allocation over time | Harris, Ch. 4 |
| Mon., June 5 (II) | Managing non-renewable resources | Harris, Ch. 12 |
| Tu., June 6 (I) | Common property and public goods | Harris, Ch. 5 |
| Tu., June 6 (II) | Review for Test #1 | |
| Th., June 8 | Test #1 (cover up to Harris, Ch. 12) | |
| Mon., June 12 (I) | Economy/environment interactions | Readings #12-14 |
| Mon., June 12 (II) | Managing renewable resources | Harris, Ch. 14 |
| Tu., June 13 (I) | Energy and the environment | Harris, Ch. 13 |
| Tu., June 13 (II) | Global climate change | Harris, Ch. 18, Readings #15-16 |
| Wed., June 14 | Field trip to Geneva | None |
| Th., June 15 | Pollution analysis and policy | Harris, Ch. 16 |
| Mon., June 19 (I) | Group Projects | |
| Mon., June 19 (II) | Environmental regulation | Readings #17-19 |
| Tu., June 20 (I) | Group Projects | |
| Tu., June 20 (II) | Trade and the environment | Harris, Ch. 19 |
| Th., June 22 | Consumption and economic development | Readings #20-22 |
| Mon., June 26 (I) | Institutions for sustainable development | Harris, Ch. 20 |
| Mon., June 26 (II) | Sustainable development and environmental politics | Readings #23-24 |

Readings:

May 18

1. The Lorax, Dr. Suess.

May 22

2. "2005 Overview," Chapter 1 of GEO Yearbook 2006, United Nations Environment Programme, (p. 3-10).

May 23

3. "Are We Saving Enough for the Future?" Chapter 2 of Expanding the Measure of Wealth: Indicators of Environmentally Sustainable Development," World Bank, 2001 (p. 7-18).
4. "The Genuine Progress Indicator: 1950-2002 (2004 Update)," Jason Venetoulis and Cliff Cobb, Redefining Progress.

May 25

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).

June 1

9. "Discounting the Future," Cedric Philibert, Internet Encyclopaedia of Ecological Economics, International Society for Ecological Economics.
10. "Contingent Valuation Method," Ecosystem Valuation, Methods, Section 6, http://www.ecosystemvaluation.org/contingent_valuation.htm.
11. "The Contingent Valuation Debate: Why Economists Should Care," Paul Portney, Chapter 10 of Economics of the Environment: Selected Readings, edited by Robert Stavins (p. 253-267).

June 12

12. "Environmental Protection: Is It Bad for the Economy?" Frank Arnold, Paper prepared under EPA Cooperative Agreement CR822795-01.
13. "No Economy-Wide Trade-Off," Eban Goodstein, Chapter 2 of The Trade-Off Myth (p. 17-40).
14. "An Eco-Industrial Revolution," David Roodman, Chapter 13 of The Natural Wealth of Nations (p. 209-223).

June 13

15. "Joint Science Academies' Statement: Global Response to Climate Change," The National Academies, nationalacademies.org/onpi/06072005.pdf.
16. "Climate Change," Richard Howarth, Internet Encyclopaedia of Ecological Economics, International Society for Ecological Economics.

June 19

17. "An Overview of Environmental Legislation," Eban Goodstein, Chapter 13 of Economics and the Environment (p. 238-257).
18. "The Regulatory Record: Achievement and Obstacles," Eban Goodstein, Chapter 14 of Economics and the Environment (p. 258-269).
19. EPA's Draft Report on the Environment 2003, Executive Summary (p. i-vi).

June 22

20. "The Environmental Costs of Consumption," Alan Durning, Chapter 4 of How Much Is Enough? (p. 43-61).
21. "Is More Really Better? Consumption and Welfare," Eban Goodstein, Chapter 11 of Economics and the Environment (p. 196-211).
22. "Linking Globalization, Consumption, and Governance," Hilary French, Chapter 7 of State of the World 2004 (p. 144-161).

June 26

23. "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).
24. "The Political Marketplace," David Roodman, Chapter 14 of The Natural Wealth of Nations (p. 224-246).