

ECON 322: Syllabus

Spring 2019

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Class Time: MW 3:30 - 4:50pm
Classroom: Tyler Hall 133

Course Summary

This course covers economic approaches to environmental and natural resource problems. In this course we will investigate the interaction between economic decisions made by firms or consumers and the environment. The main topic areas are as follows:

1. Environmental Value, Scarcity, and Sustainability.

The term environmental value has been used broadly by different groups in the popular and scientific literature. We will define what economists mean by value for the environment, and will contrast that definition with philosophical notions of environmental value. We will discuss common causes of market failure for environmental goods including problems of public goods and externalities. Additionally, we will explore the economics of sustainability and scarcity. Next we will discuss approaches for measuring economic value for the environment.

2. Market failure and regulatory approaches for environmental problems.

We start by focusing on using economics to describing and fixing environmental problems. We analyze various regulatory approaches to address environmental problems (e.g. standards, market-based incentives) and discuss the relative economic efficiency of those approaches. We will also briefly discuss current U.S. environmental regulatory approaches.

3. Topics in environmental Economics.

In this section we will use our environmental economics tool-kit and apply it to numerous issues. As time permits, we will Investigate:

1. Climate Change
2. Eco-Labeling
3. Biodiversity
4. Water Policy
5. Energy Policy

Logistics

• Office Hours

T 3:00 - 4pm or by appointment

• Email Policy

I will respond to emails but only if they contain the tag **#econ322#** in the subject line or you send it using the email address exactly as listed above. If they do not, the google will likely delete your email. Please don't expect an email response from me for questions that can't be answered in 3 sentences or less.

• Grades

Your grade will be based on two Mid-terms (30% each), a Final (30%), and problem sets (10%). Additionally, the final exam will be cumulative. Problem sets will be graded on a simple 3 level scale: completed (most items correctly answered), attempted (either sloppy work, partially attempted, or lots of incorrect answers), or not attempted. Most students making an attempt on the Problem Sets will receive full credit.

• Policy on Missed Assignments

- Mid-terms: If for whatever reason you are unable to take a mid-term exam, all weight for the missed exam will be distributed to the **remaining** mid-terms and/or the final. This policy applies to one missed mid-term only, so your second missed mid-term will receive a grade of 0. If you sit for a mid-term you must complete it. I find that students who miss mid-terms usually fare worse in the course so please use the missed mid-term policy judiciously. If you find the mid-term times inconvenient, please drop this class
- Final Exam: The final exam must be completed at the scheduled time. University policy prohibits me changing a final exam time unless [approved by the Dean of Students](#).
- Problem sets must be turned in by the assigned due date. Late work not accepted.

• Course Materials

- We will be using the textbook [Environmental and Natural Resource Economics, 11th edition](#). Instead, you may wish to pick up an [older edition](#) to save money. If you go this route, note that you are responsible for ensuring that your readings follow what is intended for the class. This shouldn't be too difficult for you as the models we are studying this semester are well-established and this book doesn't change often. Of course, if you go with an older edition, the real-world examples will be more dated.
- Additional readings are on the course blackboard site.
- Problem Sets and Course Presentations are available [at the course google drive site](#)

Key Dates

Date	Item
Jan 16	First day of class
Feb 27	Mid-Term #1
Mar 2 - 10	Fall Break
Apr 8	Mid-Term #2
Apr 26	Last day of this class
May 3 F (9am - 12pm)	Final Exam

Schedule of Classes and Topics [dates approximate]

- [First Day] Introduction to the course. Basic assumptions of economics and the environment and market Failure.

- **Unit I: Market Failure and Regulation**

- [Week 2] Externalities and public goods. Discuss basic market failures when environmental goods are not traded in markets. Focus on defining externalities and public goods with plenty of examples relating to Environment.

Readings: Tietenberg Chapter 2; Problems of social cost (Coase); Tietenberg Chapter 4.

- [Week 3] A brief primer on U.S. environmental policy. Discuss major air, water, pollution, and solid waste policies in Us.

*Readings:*Portney, Public Policies for Environmental Protection}.

- [Week 4] Regulations and Incentives. Compare and contrast different regulatory approaches including market-based incentives in microeconomic setting. The costs of U.S. Environmental Regulation.

Readings: Tietenberg Chapters 15 and 16, Economic Instruments for Environmental Regulation (Tietenberg); It's immoral to buy the right to Pollute (Sandel with replies); Toward a new conception of the environmental-competitiveness relationship (Porter et al.); Tightening Environmental Standards (Palmer et al.); Environmental Regulation and the Competitiveness of U.S. manufacturing (Jaffe et al.);Do Environmental Regulations Create or Destroy Jobs? (Morgenstern et al.).

- [Week 5] Natural resource extraction and market failure: the case of fisheries.

Readings: Tietenberg Chapter 13; The tragedy of the commons (Hardin).

- **Unit II: Valuing Environmental Amenities**

- [Week 6] Economic value and non-market goods, types of value for the environment: use value [direct, indirect]; non-use value [existence, bequest], economic impacts versus values. Discuss approaches for measuring the economic value of environmental goods. We will cover methods such as hedonics, travel cost, and contingent Valuation.

Readings: Revealing the Economic Value of the Great Lakes (Chapter 3, 4, and 6); Conservation Reconsidered (Krutilla); Portney's article (in The Wall Street Journal)

- [Week 7] Sustainability, growth, and population. Describe various concepts of sustainability. Include Malthusian versus optimist debate.

*Readings:*Sustainability: an Economist's Perspective (Solow). Tietenberg Chapter 1, 5 and 14. Plenty of Gloom (in the Economist).

- **Unit III: Topics in Environmental Economics**

- [Week 9] Climate change and trans-boundary pollutants.

Readings: Reflections on the economics of climate change (Nordhaus), Executive summary of the Stern Report.

- [Week 10] Watershed Management, pollution permits and taxes.

- [Week 11] Biodiversity and Development. The economics of biodiversity: what are we protecting. Species versus habitat protection. Ecosystem valuation.

Readings: Conflicts and choices in biodiversity (Weitzman); Willingness to Pay for Charismatic Megafauna (Kontoleon)

- [Week 12] Eco-labeling. Can eco-labeled products lead to socially desirable levels of associated "bads"? How important is the veracity of the label. Examples of eco-labeling.

Readings: Ecolabeling and the Price Premium (Sedjo and Swallow)