

ISSUES IN ENVIRONMENTAL ECONOMICS

AREC/ECON 240
TR 9:30 – 10:45

Fall 2013
C-358 Clark

Instructor: Jordan Suter

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Office Hours (B-306 Clark): Tue. 2–3, Wed. 12–2, and by appointment

Teaching Assistant: Patrick Behrer (B-302 Clark)

TA Office Hours: Thurs. 3–5

Description:

The study of environmental economics provides a means for understanding how the incentives that underlie human decision making impact the environment and the design of environmental policy. In this course, we will apply fundamental economic theory to analyze a broad range of contemporary environmental issues. In particular, we will highlight the incentives that underlie specific environmental challenges, investigate tradeoffs in the design of environmental policy, introduce tools for measuring the benefits associated with environmental goods and assess the relationship between economic growth and environmental outcomes.

Course Objectives:

- (1) Understand how economic incentives influence individual and group behavior and how this knowledge can be used to explain and address environmental challenges.
- (2) Develop an ability to identify the range of economic costs and benefits of a particular environmental policy and the tools that can be used to estimate these costs and benefits.
- (3) Improve critical thinking skills to assess the tradeoffs inherent to a broad range of contemporary environmental issues.

Readings:

The readings will come from the textbook listed below or made available through Ram CT Blackboard. The readings that are required for a given class are indicated in the course schedule and will be announced in class. All documents, including the course schedule, problem sets, and exams will be posted on the Blackboard site for this class.

Tietenberg, T. and L. Lewis, *Environmental Economics & Policy, Sixth Edition*.

Grading (out of 100%):

5 Problem sets (15%) – You will be given one week to complete each problem set. You are allowed to work on the assignment with one other student. If you choose to work with another student, please turn in one assignment with each of your names at the top. I expect each individual to fully understand all solutions provided. Problem sets are due at the beginning of class and *late assignments will not be accepted*. The grade of the lowest of the five problem sets will be dropped.

Policy comparison paper (10%) – In this paper you will research two differing environmental policies that are in place to address a particular environmental concern. You will then write a four page summary of the policies that includes a comparison of their successes and shortcomings and some basic lessons that can be gleaned from these outcomes. There will be two opportunities for submitting a paper (see course schedule). If you wish, you can submit papers on each occasion and

your grade will be the average of the two grades that you receive. Late papers will be penalized two points per day that it is late. More information about expectations will be provided prior to the due date of the first assignment.

Participation (5%) –I value your attendance and participation in all class discussions.

Midterm exams (40%) – Each exam will include multiple choice, short answer and essay questions related to readings and lectures. There will be no makeup exams offered. If you have a medical excuse or family emergency and cannot attend the exam, you must let me know at least 48 hours in advance and provide proper documentation.

Final exam (30%) – A cumulative final will be given from 2 – 4pm on Wednesday, December 18th. Please make sure that your travel plans do not conflict with the exam time.

Final grades will be based out of 100 percent, weighted according to the values given above. Letter grades will be assigned using the following scale: A (100 – 90), B (89 – 80), C (79 – 70), D (69 – 60), F (59 and below). Pluses and minuses are possible for each letter grade of C and higher and are awarded based on B+ (89 – 87), B (86 – 83), B- (82 – 80), etc.

Academic Integrity:

This course will adhere to the Academic Integrity Policy of the CSU General Catalog and the Student Conduct Code. I expect all work that you do in the course to be your own, with the exception of problem sets, where you can work with one other student. Cases of plagiarism in written work will be taken seriously, so please familiarize yourself with CSU's guide to avoiding plagiarism (<http://writing.colostate.edu/guides/researchsources/understandingplagiarism/plagiarismoverview.cfm>). On examinations I will require that each student write the honor pledge: "I have not given, received, or used any unauthorized assistance."

Expectations and Feedback

I expect students to attend every class having done the assigned readings so that you are prepared to contribute. It is also my expectation that you will be open-minded and considerate of the thoughts and ideas of all of your fellow classmates. In return, I will strive to conduct organized and insightful class sessions and to treat your intellectual work with fairness and impartiality.

Resources for Disabled Students:

If you have a documented disability and wish to discuss academic accommodations, please contact me as soon as possible to set up the appropriate arrangements. Please do not wait until the day before an exam to request accommodations. Further information - <http://rds.colostate.edu/students>

Course Outline:

I. Core Concepts

- Supply and demand, welfare economics, externalities, property rights, public goods

II. Comparing Benefits and Costs

- Non-market valuation methods, time discounting, risk

III. Common Pool Resources

- Tragedy of the commons, policies to protect fisheries, water resource economics, forest and biodiversity preservation

IV. Pollution control and energy policy

- Pollution taxes, emissions trading, renewable portfolio standards, conventional and renewable energy resources, energy efficiency

V. Sustainability

- Economic growth and the environment, green accounting, environmental Kuznets curve, pollution haven hypothesis

Course Schedule:

Section	Date	Assignment	Reading
I Core Concepts	Aug 27 & 29		Chap. 1 Harris: Microeconomics appendix
	Sep 3 & 5	PS #1 Due (9/5)	Chap. 2 - Supply and demand
	Sep 10 & 12		Chap. 4 - Externalities and public goods Mankiw. "Raise the gas tax" plus Mankiw's response to critics
II Comparing Benefits and Costs	Sep 17 & 19	PS #2 Due (9/19)	Chap. 4 - Cost benefit analysis
	Sep 24		Chap. 3 - Valuation methods
Sep 26		Midterm I	
III Resource Management	Oct 1 & 3		Chap. 12 - Fisheries Hardin. "The tragedy of the commons."
	Oct 8 & 10	PS #3 Due (10/10)	Chap. 9 - Water
	Oct 15 & 17		Chap. 10 - Land Adams et al. "Biodiversity conservation and the eradication of poverty." Ferraro and Kiss. "Direct payments to conserve biodiversity."
IV. Pollution Control and Energy	Oct 22 & 24	Paper #1 Due (10/24)	Chap. 14 - Pollution control
	Oct 29 & 31	PS #4 Due (10/31)	Chap. 15 - Climate change policy Yale Environment 360. "Putting a price on carbon: an emissions cap or a tax?"
	Nov 5		Chap. 7, 8 (p.140 - 158) - Conventional energy
	Nov 7	Midterm II	
	Nov 12 & 14		Chap. 8 (p.158 - 171) - Alternative energy Gillingham et al. "Energy efficiency economics and policy."
V. Sustain- ability	Nov 19 & 21	Paper #2 Due (11/21)	Chap 5, 6 - Sustainability and population growth Tierney. "Betting on the planet."
	Dec 3 & 5	PS # 5 Due (12/5)	Chap. 20 - Poverty and the environment
	Dec 10 & 12		Chap. 21, 22 - Sustainability metrics