90-803: Environmental Economics

Professor Karen Clay
Fall 2011 (Mini 1), Tuesday and Thursday, 3:30-4:50

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Office hours: I usually have office hours before exams. To meet at other times, send me an email.
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Course Description
This course covers the material that students would be expected to have mastered to participate in a meaningful policy discussion about environmental issues. The goal is for students to be able to understand the economic approach to analysis of environmental problems, common critiques of this approach, specific types of solutions to environmental problems currently in use, and the advantages and disadvantages of these solutions. The course discusses costs and benefits, but the overlap with the Cost-Benefit Analysis course (90-747) is not large. This course also has relative limited overlap with the Economics of Global Warming course (90-828). That course focuses on a single – and extremely difficult to address – environmental issue from a technical and economic perspective.

Course Objectives
Upon completion of this course, the student will be able to:
1. Discuss the economic approach to analysis of environmental problems.
2. Clarify the common critiques of the approach.
3. Establish solutions to the environmental problems currently in use.
4. Appraise the advantages and disadvantages of these solutions.

Course Web Page http://www.cmu.edu/blackboard

Text None, all of the readings are available on Blackboard

Grading Scheme
Exams 70 percent (each exam is worth 35 percent)
Reaction papers 10 percent (5 out of 7 RPs)
Blackboard 10 percent (5 out of 7 weeks)
Class participation 10 percent

Exams
There are two non-cumulative exams. The midterm will be held during Lecture 8 and will cover the material from lectures 1-6. The second midterm exam will be held during the exam period and will cover the material from lectures 7 and 9-14. The exam will be a mix of short answer questions and case analysis.
**Reaction papers**
Students are required to submit 5 short 1-2 page reaction papers on the assigned readings prior to the start of class. No more than 1 reaction paper is permitted per lecture. If there are multiple readings, students should write on just one chapter/case/paper. Reaction papers are graded on a credit/no credit basis. To avoid skewing of the final grade distribution, full credit is treated as 90 percent.

In a reaction paper, students should briefly summarize the paper and then respond to it. Responses often take the form of agreeing or disagreeing with the argument, discussion of questions the reading raised, or discussion of points on which the student would have liked more information.

**Blackboard**
Students are required to post at least 5 articles with a brief discussion (or comment on articles posted by other students) in the course of the mini-semester. The discussion should focus on the economic aspects of the environmental issue. The expectation is that students will post roughly once per week. (Doing 5 postings in the last week will not lead to full credit).

**Class Participation**
Students are strongly encouraged to attend class and ask questions. I consider lectures and in-class discussion are an integral part of the learning experience. Because it is difficult to make an informed comment without having done the readings, students are strongly encouraged to read the material ahead of time.

Students generally receive one of three types of evaluations for class participation. Common grades for those evaluations are listed following the evaluation. Attending regularly is considered to be attending at least 11 of 13 classes.

Excellent: Attends regularly and actively participates. Low to mid 90s.
Good: Attends regularly and occasionally participates. Low to mid 80s.
Unacceptable: Does not attend regularly or never participates. Low to mid 60s, sometimes lower.
Tentative Schedule of Lectures

Lecture 1 (Aug 30): Overview
Fullerton and Stavins

Lecture 2 (Sept 1): Price and Tax interventions
Cropper et al. Cars Ozone
Crane et al. Oil Tax

RP # 1 due

Lecture 3 (Sept 6): Norms and Other Behavioral Interventions
Costa and Kahn Residential Electricity
Costa and Kahn Nudge

RP # 2 due

Lecture 4 (Sept 8): Costs
Stavins Grand Policy Experiment
Jaffe et al. Manufacturing

For an optional review of more recent evidence, see
  * http://works.bepress.com/cgi/viewcontent.cgi?article=1006&context=taylor

RP # 3 due

Lecture 5 (Sept 13): Costs II
Crane et al Greenhouse Gas
Porter and van der Linde

Optional: Palmer et al response to Porter and van der Linde

RP # 4 due

Lecture 6 (Sept 15): Enforcement of Regulations
Apel Nagin Deterrence
Kagan Environmental Regulation

Interesting local article and information on state enforcement
http://www.post-gazette.com/pg/10215/1077192-454.stm
http://www.portal.state.pa.us/portal/server.pt/community/news_releases/14288

RP # 5 due
Lecture 7 (Sept 20): Coase, Environmental Liability
Polinsky (I would highly recommend reading Polinsky first and then reading Coase)
Coase Social Cost
Grainger Costello Fisheries

Lecture 8 (Sept 22)
Movie Day: Who Killed the Electric Car?

Lecture 9 (Sept 27): Midterm Exam
In class exam

Lecture 10 (Sept 29): Jacob Hanchar of River Hill Coal
Please look over his company website including the part on their environmental efforts
http://www.rhcoal.com/
Another big regional player is Consol. You might want to look at their environmental efforts.

Lecture 11 (Oct 4): Cost-Benefit and Mortality
Wheelan Cost Benefit
Cropper et al. Mortality Risk

RP # 6 due

Lecture 12 (Oct 6) Valuing Things without Prices
Heal Valuing Ecosystem Services
Portney Contingent Valuation
Carson Exxon Valdez

RP # 7 due

Lecture 13 (Oct 11): Environmental Kuznets Curve
Jordan Meta-Analysis of Kuznets Curves
Columbia Payments for Environmental Services
Ecuador Payments for Environmental Services

Lecture 14 (Oct 13): Student Interest
TBA

Exam week: Second Midterm exam