Environmental Economics and Policy
ECON 230, ENVA 232
Spring 2008
TR 3:30 pm - 5:15 pm Cowell Hall 428

1 Preliminaries

Instructor:	Dr. Jennifer Alix-Garcia
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Office Hours:	Th 1-3 and by appointment
Course Materials:	Callan and Thomas (2003 or 2006) *Environmental Economics & Management* other readings available on Blackboard

2 Course Description

This course will examine the uses and limitations of economic analysis in dealing with environmental problems facing our society. The course will begin by developing standard economic tools used for analytical study of environmental concerns and policies. The second half of the course will apply these tools to various topics, including air pollution, water pollution, resource degradation, climate change, and economic development and the environment, among others.

2.1 Learning objectives:

By the end of this course you should be able to:

1. Understand the market failures which lead to environmental problems.
2. Identify various policies to address these market failures.
3. Assess the pros and cons of these different policies.

3 Course requirements

Your grade in this course will be based upon problem sets, 2 midterms, a final exam, a short paper, and class participation. The contribution of each of these elements to your final grade is as follows:

Problem sets:	20%
Midterm Exam I:	20%
Midterm Exam II:	20%
Final Exam:	20%
Paper:	15%
Participation:	5%

Out of all of the problem sets for the class, your lowest grade will be dropped. The final grades in the class will be curved.

Readings will be posted on Blackboard and handed out in class. These readings are REQUIRED.

4 Important things to note

- **Except for documented emergencies or University excused absences, make-up exams are not given.**
- Even when you are representing the University of San Francisco in intercollegiate competition (e.g., athletics, debate), you are responsible for advising me regarding anticipated absences and for arranging to complete course work for classes and/or examinations missed.
- I cannot force you to attend class, nor would I want to. Please be aware, however, that whether you attend or not, you are responsible for everything that occurs in class.
- Please note that if you stop attending class, you are not automatically dropped from the class. If you wish to withdraw from the course, you must bring a drop/add form to me to sign.
- Cheating on any quiz or exam will result in a zero score for that work as well as a referral to the Dean and the Committee on Student Academic Honesty.
- The ringing of a cell phone in class will result in a pop quiz.
- You are allowed to use laptops **to take notes** in class. If you wish to surf the web or send emails, please do so outside of class time, as these activities, in addition to distracting you, may also distract those sitting near you.

5 Short paper

Economics provides useful tools for understanding current environmental problems. Therefore, for this class you will have to keep abreast of current events. Every week, you are expected to collect at least two news articles on environmental issues from reliable sources to put into a portfolio which you will turn in at the end of the semester. Reliable news sources include: *The New York Times*,

The Washington Post, *The San Francisco Chronicle*, *The Economist*, *Newsweek*, among others. Publication dates of all articles must be include, and if you download articles from the web, a download date must be included in the printout.

On the last day of class you must hand in:

1. Your article portfolio, organized in chronological order.
2. A five page analysis of the articles using the basic tools of economics acquired in this class. Your analysis should describe the environmental problem. If applicable, discuss the solutions which are being used to resolve this problem. Propose alternative policies and discuss their pros and cons.

6 Tentative Schedule

The date of **midterm exam I is Tuesday, February 19** during class. The date of **midterm exam II is Thursday, April 3** during class. The date of the **final exam is Thursday, May 15 at 12 pm**. Write these dates down and plan your schedule accordingly. There will be **ABSOLUTELY NO MAKE-UP EXAMS.**

Below you will find a tentative schedule of topics and readings. **This list is highly likely to be modified as the semester progresses**.

1. Introduction to Environmental Economics
   - Fullerton and Stavins (1998) "How Economists See the Environment" *Science*
   - Callan and Thomas Chapter 1
2. Economic Principles Review
   - Callan and Thomas Chapter 2
   - Supplemental reading: Krugman and Wells chs 3 and 6
3. Market Failures and the Environment I: Public Goods and Common Property Resources
   - Callan and Thomas Chapter 3 – pages 46-54
   - Hardin (1965) "The Tragedy of the Commons" *Science* 162
   - Supplemental reading: Krugman and Wells ch 20
4. Market Failures and the Environment II: Externalities
   - Callan and Thomas Chapter 3 – pages 54-66
   - Supplemental reading: Krugman and Wells ch 21
5. Internalizing Externalities through Property Rights and Command and Control Strategies
   - Callan and Thomas Chapter 4
   - Coase (1960) "The Problem of Social Cost" *Journal of Law and Economics*

- Bardhan (1993) "Analytics of the Institutions of Informal Cooperation in Rural Development" *World Development* 21(4)

6. Internalizing Externalities through Market-based Instruments: Taxes, Subsidies, Tradable Permits

   - Callan and Thomas Chapter 5
   - Economist (2005) "Are you being served?"
   - UNISFERA (2004) "Payments for Environmental Services: A survey and assessment of current schemes" Montreal
   - Sandel (1997) "It's Immoral to Buy the Right to Pollute" *New York Times* Dec. 15 and replies

7. Environmental Decision-Making and Cost-Benefit Analysis I: Valuing environmental benefits

   - Callan and Thomas Chapter 7
   - Krutilla (1967) "Conservation Reconsidered" *American Economic Review*
   - Diamond and Hausman (1994)"Contingent Valuation: Is Some Number Better than No Number?" *Journal of Economic Perspectives* 8(4):45-64
   - Hanemann (1994) "Valuing the Environment through Contingent Valuation" *Journal of Economic Perspectives* 8(4):19-43

8. Environmental Decision-Making and Cost-Benefit Analysis II: Measuring costs

   - Callan and Thomas Chapter 8

9. Environmental Decision-Making and Cost-Benefit Analysis III: Putting costs and benefits together

   - Callan and Thomas Chapter 9
   - Kelman (1981) "Cost-Benefit Analysis: An Ethical Critique" *AEI Journal on Government and Society Regulation* and replies

10. Air Pollution – the local commons

    - Callan and Thomas chs 10, 11, 12
    - Keohane et al (1998) "The Choice of Regulatory Instruments in Environmental Policy" *Harvard Environmental Law Review*
    - Parry et al (2007) "Automobile externalities and policies" *RFF Discussion Paper*
    - Portney (1990) "Economics and the Clean Air Act" *Journal of Economic Perspectives*
    - Case study: Mexico City

11. Ozone and Global Climate Change – the global commons

    - Callan and Thomas ch 13
    - Stern (2006) "Executive Summary"

- Nordhaus (1993) "Reflections on the Economics of Climate Change" *Journal of Economic Perspectives*
- Barrett (2002) "Creating Incentives for International Cooperation: Strategic Choices" in *Providing global Public Goods: Managing Globalization*

12. Water pollution and overuse
    - Callan and Thomas chs 14, 15
    - Millenium Ecosystem Assessment
    - Case study: India
13. Economic Development and the Environment
    - Tietenberg chs. 20 and 21
    - Dasgupta et al. "Confronting the Environmental Kuznets Curve" *Journal of Economic Perspectives* 16(1): 147-158
14. Introduction to natural resource economics?
    - Tietenberg ch 7
    - Brander and Taylor (1998) "The Simple Economics of Easter Island: A Ricardo-Malthus Model of Renewable Resource Use" *American Economic Review* 88 (1): 119-138
15. Deforestation, degradation, and desertification
    - Tietenberg ch 11
    - Millenium Ecosystem Assessment
    - Case study: Deforestation in Thailand
    - Case study: Desertification in Africa