Course Summary

This class will focus on the economic tools used to study environmental issues. The objective is to provide students with the economic tools needed to study environmental issues and to inform firm decision making in the presence of environmental regulation. We will cover the ways in which markets fail to efficiently allocate resources in the presence of externalities along with mechanisms that can be used to correct those failures, including tax-based solutions, such as emissions taxes, solutions based on the creation and design of missing markets, such as tradable emission permits, and solutions based on international cooperation governed by treaties. We will consider environmental questions facing firms such as: Can firms earn cost savings by reducing their environmental impacts? How should firms think about the task of being environmentally responsible? What is the potential for product differentiation along environmental lines? How can firms shape regulation to secure competitive advantage? Finally, we will analyze the incentives for firms to be environmentally friendly, the extent to which some firms have succeeded in being “green,” and whether it “pays to be green.”

The course will attempt to help students see how (a) they can successfully run a business without feeling like they are killing the planet; (b) deal with this challenge, however they feel about the environment; and (c) see how certain ways of dealing with it can lead industries to better equilibria.

Textbook

We will use the following book:


As optional material, the following book is a nice collection of readings on environmental economics. I will provide several of the articles from this collection through e-reserves.


In addition, more mathematically inclined students may want to refer to:

Topics

The course will be organized around four basic topics:

“The Environmental Problem”: Why might markets fail to protect the environment?

“Corporate Responsibility”: How should you as a manager deal with conflicting responsibilities to your firms and its shareholders and to the environment?

“Environmental Solutions”: How can voluntary mechanisms, tax-based solutions, and market-based solutions address environmental problems?

“Measurement”: How can one use data to quantify the demand for improved environmental quality?

Grading

Course grades will be based on the following components: class exercises and individual homework (20%), a mid-term exam (25%), team homework #1 (30%), and team homework #2 (25%). More details on each of these are provided below.

Class exercises and individual homework

There will be at least one graded in-class exercise during the residency and several short individual homework assignments.

Midterm exam

During our first week of the distance portion of the class, there will be an open-book midterm exam. You will have the entire week to complete the exam.

Team homework #1

During the distance portion of the class, there will be a team homework assignment in which you will use data to quantify the willingness to pay of a community for the clean-up of a hazardous waste site.

Team homework #2

During the distance portion of the class, there will be a team homework assignment related to price differentials for environmentally friendly products.
Key dates

September 17, 2010: carbon footprint component of the pre-assignment due

October 5, 2010: midterm exam released

October 11, 2010: midterm exam due

October 19, 2010 (12:01am EST): individual introductory homework on the measurement of environmental demand released and team homework on the measurement of environmental demand released

October 25, 2010: individual introductory homework on the measurement of environmental demand due

November 22, 2010: team homework on the measurement of environmental demand due

November 30, 2010: team homework #2 released

December 6, 2010: team homework #2 due

There will be four weekend chat sessions: October 9, November 6, November 20, and December 4.

We will use the discussion boards primarily to exchange ideas related to the team homeworks.

Discussion boards:
1. Course Updates (Instructor Only) – Open after the residency
2. General Discussion
3. Measurement Assignment
4. Pricing Assignment