

Economics and Environmental Policy Analysis (ESM 251)

Bren School of Environmental Science & Management
University of California, Santa Barbara
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Course Objectives

The goal of this short course is to provide an introduction to microeconomics and its application to environmental policy analysis. The course begins with an overview of microeconomic analysis. We will study how markets determine prices and the allocation of scarce resources. We will then take a more in-depth look at how consumers and firms make decisions, and how we can measure the benefits to them of consumption and production. We will examine when markets maximize net benefits to society and under what conditions they fail to do this. We will see that market failure arises frequently in connection to the environment. The last part of the class will focus on the design of environmental policies to improve the performance of markets. After taking the course, students will have the necessary background to apply basic economic tools to real-world environmental problems as well as to pursue these topics further in ESM 204 and elective courses in economics, policy, and political science.

Course Materials

Most of the readings for the course will be taken from *The Economics of the Environment* (1st edition) by P. Berck and G. Helfand. If I use additional readings, I will post them on the course website.

Course Requirements

You are expected to complete all of the *assigned reading* before class, as lectures will build on rather than reiterate reading material.¹ There will be *three problem sets*. You may work on the problem sets in groups; however, you are responsible for writing your own answers, in your own words. Working through the problem sets will help you to understand the material and prepare for the final exam. You must turn in a hard copy of the completed problem set (put in Andrew's mailbox in Bren 2406) before 5 pm on the Thursday it is due. No electronic copies or late assignments will be accepted. Three ungraded quizzes will be given. The quiz will be posted over the weekend and due on Monday at the start of class.

Times and Dates

Class meets Monday and Wednesday, 9:30-10:45 am, from February 14 – March 14 in BH 1414. Quizzes are due on the following Mondays: **February 27, March 6, and March 13**

¹ I only expect you to skim the reading for February 28.

Problem sets are due on the following Thursdays: **February 28, March 7, and March 14**
The final exam is scheduled for Wednesday, March 21, 9-11 am, 1414 Bren Hall

Grading

Course grades will be based on the three quizzes (10%), the problem sets (40%), and the final exam (50%). You will get credit for the quiz if it is complete and turned in on time (at the start of class). The problem sets will be graded as follows. You will receive 60% of the points for handing in a completed assignment on time. The TA will then grade two of the questions, each of which will count for an additional 20% of the points.

Schedule

<u>Date</u>	<u>Topic</u>	<u>Readings</u>
Feb. 14	Introduction	BH, Ch. 1 Fullerton and Stavins article
Feb. 19	UCSB Holiday. No class.	
Feb. 21	Supply, demand, and market equilibrium	BH, Ch. 2
Feb. 26	Benefits to consumers and aggregate demand	BH, Ch. 5 (pp. 81-90) and Ch. 4 (pp. 75-77)
Feb. 28	Firm supply, profits, and aggregate supply	BH, Ch. 9 (pp. 189-206) (Skim)
Mar. 5	Maximizing net benefits	BH, Ch. 10
Mar. 7	Market failure	BH, Ch. 3
Mar. 12	Environmental policy	BH, Ch. 11, 12
Mar. 14	Environmental policy	BH, Ch. 12
Mar. 20	Final Exam	