I. COURSE DESCRIPTION

Course Focus:

This course examines sources of and remedies for environmental problems in industrialized and developing countries. We focus on the economic underpinnings of important environmental problems and on ways that public policies can solve some of these problems.

Class Meetings:

Lectures are Tuesdays and Thursdays 9:00-10:50. There will also be weekly 50-minute sections, beginning in the second week of classes.

Instructors:

The principal instructor for this course is:

Lawrence H. Goulder
Department of Economics, Landau Economics Building Room 328
phone: 723-3706
e-mail: goulder@stanford.edu
office hours: Wednesdays 3:30-5:00 or by appt.

The teaching assistant is:

Santiago Saavedra Pineda
Department of Economics, Landau Economics Building
e-mail: santisaap@gmail.com
office hours: Wednesdays 1:00-3:00 in Landau Economics Building Room 360

The course also includes guest lectures by other Stanford faculty, as indicated on the lecture outline below.
Prerequisites, Course Requirements and Grading:

To enroll in this course, students must have already taken Economics 50 or an equivalent intermediate microeconomics course approved by the professor.

This is a five-unit course. The course requirements and grading weights are:

<table>
<thead>
<tr>
<th>requirement</th>
<th>date</th>
<th>weight in overall grade</th>
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<tbody>
<tr>
<td>15-minute quiz</td>
<td>Thursday, January 30 (Note Change)</td>
<td>5%</td>
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<tr>
<td>50-minute midterm</td>
<td>Tuesday, February 18</td>
<td>20%</td>
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<tr>
<td>3-hour final exam</td>
<td>Monday, March 17, 12:15-3:15 p.m.</td>
<td>55%</td>
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<tr>
<td>research paper</td>
<td>due Friday, March 14</td>
<td>20%</td>
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We will also be providing problem sets approximately once a week. These will not be graded and are not to be turned in. Their purpose is simply to help you focus your studies and learn the material more effectively.

For the research paper, you’ll apply the concepts and analytical tools from the course to analyze and evaluate current or potential environmental policy. The paper should be 8-10 pages in length. Guidelines for preparing and writing the research paper will be offered later in the course.

Students may take the course on a pass-fail basis.

Exam attendance: The Economics Department has articulated a policy concerning exam attendance and scheduling. Students must take each exam on the dates scheduled above. Exam dates will not be changed for individual students to accommodate job interviews, family events, etc. Exceptions will be made only for serious medical reasons or in the event of a death in the family. If a student athlete must be off-campus the day of an exam, he/she must take the exam on the date above and supply his/her answers by fax on that date.

Students with documented disabilities: Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Student Disability Resource Center (SDRC) located within the Office of Accessible Education (OAE). SDRC staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact the SDRC as soon as possible since timely notice is needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: 723-1066, 723-1067 TTY).
II. LECTURE OUTLINE AND READING LIST

The readings listed below are required. Ideally, they should be completed prior to the lectures with which they are listed. The readings are available on Coursework. There is no required textbook for the course, although selections from some textbooks are included below.

1. Introduction and Framework for Analysis

Thurs. 1/9 Introduction:

Course Topics
Some Background: Trends in Environmental Policy and Quality


Tues. 1/14 Externalities, Market Failures, and Welfare I:

Nature of Market Failure
Efficiency Impacts of Alternative Policy Instruments


Thurs. 1/16 Externalities, Market Failures, and Welfare II:

Distributional Considerations
 Tradable Emissions Allowances

2. Local and Regional Air Pollution Problems

Tues. 1/21 Tradable Emissions Allowances in Practice


available starting Wed. 1/22 Government Intervention Reconsidered: The Coase Theorem (taped lecture on Coursework)

**Thurs. 1/23**  Local and Regional Pollution Control Policy: General Conclusions


**Thurs. 1/23** (cont’d.) Economic Perspectives on the Prospect of Global Climate Change

**Tues. 1/28**  Global Climate Change: Domestic Policy Options

**Thurs. 1/30**  **QUIZ:** Perspectives on Recent U.S. National and State-Level Climate Policy Initiatives


**Tues. 2/4**  Environmental Policy Making under Uncertainty

**Thurs. 2/6**  International Aspects of Environmental Problems:

*Acid Rain in Europe*

*International Approaches to Addressing Global Climate Change*


**4. Environmental Issues in Developing Countries**

**Tues. 2/11**  Sustainable Development: Defining and Measuring Sustainability


**Thurs. 2/13**  
Sources of Unsustainable Economic Paths; Policies to Promote Sustainability

5. **Open Access Problems, Overharvesting, and Extinction**

**Thurs. 2/13 (cont’d.)  Fisheries I: Open Access, Market Failure, and Government Failure**


**Tues. 2/18 **  
**MIDTERM EXAM**

**Tues. 2/18 (cont’d.)  Fisheries II: Dynamics of the Fish Stock**


*(Additional policy options will be the focus of guest lecture by Juan-Pablo Montero on February 27)*

Schein, Andrew, “Owning a Piece of a Fishery: The Tradable Permits Approach in Alaska’s Halibut Fishery”


**Thurs. 2/20**  
Fisheries III: Policy Alternatives

6. **Valuing the Environment**

**Tues. 2/25**  
Valuing Nature:  
*Philosophical Bases of Value*  
*Empirical Methods for Assessing the Value of Environmental Amenities - I*


Thurs. 2/27 Policies to Counter Urban Traffic Congestion (Professor Juan-Pablo Montero)

Empirical Methods for Assessing the Value of Environmental Amenities - II

Goodstein, Eban, Economics and the Environment (fifth edition), ch. 8, sections 8.1, 8.4, and 8.6-8.8.


The three symposium articles below are now optional:

7. Water Problems in the Western U.S.

Tues. 3/4 Water Law, Problems and Solutions (Professor Buzz Thompson)

Thurs. 3/6 Valuing Life and Safety

8. Population Growth, the Environment, and the Long Run

Tues. 3/11 Population Growth: Sources and Policy

This article is no longer assigned.

These articles are assigned:


Thurs. 3/13 Population, Technology, and Long-Run Perspectives on Environmental Degradation

9. Conclusions

Thurs. 3/13 (cont’d.) The Environmental Future: Key Analytical Themes, Key Policy Challenges