

## **Econ 4545: Environmental Economics**

MWF 10 – 10:50

ECON 119

Instructor: Megan Harrod

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Course website: <http://ucsu.colorado.edu/~harrod/>

Office: ECON 414

Office Hours: Wednesdays and Fridays 9 – 10 and by appointment

**Course Schedule:** For details on assignment dates check the course schedule (link coming soon). This will be updated frequently throughout the semester so check back often.

### **Textbooks:**

Stavins, R. 2000. *Economics of the Environment*, 4<sup>th</sup> edition.

Field, B. and M. Field. 2002. *Environmental Economics*, 3<sup>rd</sup> edition.

**Course Objectives:** Learn how to apply economic principles to analyze environmental problems, focusing on identifying market failures, understanding externalities, and analyzing environmental policies.

**Prerequisites:** Intermediate Microeconomic Theory (ECON 3070) or equivalent. Environmental economics is an application microeconomic theory so it is critical that you have a solid foundation in consumer and producer theory. Some calculus, in the context of utility and profit maximization, will be required.

**Class Structure:** This course will be a mix of interactive lectures and class discussions. I will present analytical methods in lecture, with plenty of opportunity for questions and interactions. To provide context for these analytical methods we will read seminal papers in environmental economics. During the classes when we go over these papers, I expect you to participate in class discussion. To facilitate your understanding of the topics I expect you to keep up with readings in the textbooks.

### **Evaluation Criteria:**

*Briefs (10%):* To ensure that you read the papers before class discussions, you will be required to complete a brief of the paper(s) we will be discussing. The briefs must include a summary of the paper's hypotheses, methods, and conclusions, as well as a discussion of how this paper contributed to the topic we are discussing. You will be graded based on how succinctly, accurately, and clearly you summarize the papers.

*Presentations (15%):* Together with a partner you will present a case study related to an environmental problem or environmental policy, presenting how economic tools have been used to address an environmental problem. These presentations will be scheduled during the last 2 weeks of the class. I will provide more details on my expectations for these presentations after the 1<sup>st</sup> midterm. You will be graded on the quality of your analysis and application and how well you present your ideas.

*Problem Sets (15%):* We will have quantitative problem sets for each section of the course.

*Midterms and Final (15% apiece):* Two in-class midterms and a final exam will be given on the dates noted below.

*Class Participation (5%):* As stated above, I expect you to participate actively in class discussions.

### **Important Dates**

February 19<sup>th</sup>

Midterm I

February 21<sup>st</sup> and 23<sup>rd</sup>

No class – I will be traveling

April 4<sup>th</sup>

Midterm II

May 7<sup>th</sup>

Final Exam (10:30 – 1)

## Course Overview

Field and Field		Stavins
Chapter	Topic	Author
<b>Preliminaries, Microeconomic Review, Mathematical Preliminaries</b>		
1	What Is Environmental Economics?	Fullerton and Stavins Hardin Hahn
2	Economics and the Environment	
3	Benefits and Costs, Supply and Demand	
4	Economic Efficiency and Markets	
<b>Economics of Environmental Regulation</b>		
5	Economics of Environmental Quality	Coase Goulder Tietenberg Stavins
10	Decentralized Policies	
11	Command and Control Strategies	
12	Incentive-based Strategies: Charges	
13	Incentive-based Strategies: Permits	
<b>Environmental Policy in the United States</b>		
14	Water	Freeman Hahn
15	Air	
16	Toxics	
<b>Environmental Policy Analysis</b>		
6	Frameworks of Analysis	Hanneman Diamond Portney Ellis and Fisher
7	Benefits	
8	Costs	