

Microeconomics for Policy Analysis II

Course Title: Microeconomics and Policy Analysis II – Spring 2024

Course Number: ENVP U8216

Meeting Date/s Times: Thursdays, 6:10pm-8:00pm

Location: 410 International Affairs Building

Instructor: Selcuk Eren

Office Hours: Thursdays, 8:00pm-9:00pm or by appointment

Columbia Email Address: se2414@columbia.edu

Prerequisites: Microeconomics and Policy Analysis I

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Recitation hours: Thursday 4:10-6PM IAB 410. TA Office hours Monday 9-10:50AM or by appointment.

Course Objective

This is a core economics course for the MPA in Environmental Science and Policy. The course explores the use of economic analysis tools in the discussion and evaluation of environmental policies. It builds on the microeconomic framework developed in Microeconomics and Policy Analysis I and extends it in a few directions. First, we deepen the discussion of theoretical issues particularly relevant for the analysis of environmental policies, such as externalities and public goods. Second, we explore how the theoretical concepts covered can be measured and used in actual environmental policy, and discuss real world examples of such applications. And finally, we discuss some aggregate implications related to – and the available evidence on – the two-way relationship between natural resources and economic growth. By the end of the semester, students will gain experience in using a range of economic concepts to recommend or critique actual environmental decisions.

Course Overview

This is a semester-long course and has two broad sections. The first section begins by introducing economic efficiency and cost-effectiveness criteria commonly used to evaluate public policy decisions related to environment issues. We examine practical steps for evaluating policies by studying environmental valuation techniques, cost-benefit approaches and cost-effectiveness analysis. We then apply some of these techniques to analyze the appropriateness of various pollution regulation options. This section ends with a discussion of more sophisticated public policy options that take into account information, risk, and uncertainty problems.

In the second section, the focus moves from applying an economic framework to analyze environmental issues within a single market to thinking about the impacts across an entire

economy and across countries. We begin by introducing how to measure a country's economic performance in the short run and then turn to long-run economic growth theory and how these concepts relate to the environment. This section also examines the role of natural resource management in sustainable development. The semester ends by examining some current environmental policy debates.

Method of Instruction

Pre-class reading, regular attendance at lectures, thoughtful class participation and diligent efforts to do the problem sets are each necessary to master the course. The course will use some basic tools from calculus, econometrics, and linear algebra when convenient. The emphasis will be on building economic intuition and critical interpretation of economic research and technical research skills.

Recommended Textbooks

Kolstad, Charles D. Environmental Economics. Second Edition. New York: Oxford University Press, 2012.

Keohane, Nathaniel, and Sheila Olmstead, Second Edition. Markets and the Environment. Washington: Island Press, 2016.

Stavins, Robert N., ed. Economics of the Environment: Selected Readings, Seventh Edition. New York, New York: W. W. Norton & Company, 2019.

Method of Evaluation

Regular attendance and active class participation are expected. Students should have done the readings for each lecture before class. Grades for the course will be based on:

1. *Midterm Examination (25%)*

The midterm will be in class. Each student is required to take the examination.

2. *Team Project (30%)*

Students are expected to form groups of four and prepare a class presentation on a topic of their choice that is related to the class. Examples of past presentations and expectations will be posted separately.

3. *Problem Sets (25%)*

There are 5 problem sets. You can form groups of up to four people to work on the problem sets.

4. *Class Participation and Weekly Presentation (20%)*

There are two parts to grading the participation and presentation. 1) Students are required to attend both the class and the recitation. 2) Starting week 3, students will be assigned readings to present to the rest of the class. In the presentations, students will (i) summarize the main points; (ii) identify the assumptions underlying the arguments; (iii) identify areas where the student agrees or disagrees with the author(s) (and why); and (iv) propose questions for the rest of the class. Presentations can be done by groups of 2 students and should not exceed 10 minutes with another 5 minutes dedicated to class discussions.

Re-Grading Policy

If you feel your solution has been overlooked or graded it incorrectly, please hand in a written note explaining why the particular item should be regarded within two weeks after the problem set/exam was made available for pick-up. Once the two weeks have passed, you forfeit the right for a re-grade.

Course Outline

The following is a preliminary course outline. The lecture schedule and other material are subject to change to accommodate the flow of the course. Additional readings will be posted on CourseWorks before each lecture.

Date	Topic	Reading
Week 1 01/18/2024	Course logistics, review of efficiency in competitive markets	
Week 2 01/25/2024	Issues in Environmental Economics	Kolstad, Ch. 1, 2, and 3
Week 3 02/01/2024	Externalities and public goods	Kolstad, Ch 4 and 5
Week 4 02/08/2024	Decision making in environmental policy	Kolstad Ch 6
Week 5 02/15/2024	Demand for Environmental Goods	Kolstad, Ch. 7
Week 6 02/22/2024	Benefit Estimation Methods: Hedonic Pricing	Kolstad, Ch. 8
Week 7 02/29/2024	Benefit Estimation Methods: Travel Cost and Contingent Valuation	Kolstad Ch. 9 and 10
Week 8 03/07/2024	Regulation, Taxes and Subsidies	Kolstad, Ch. 11 and 12

Week 9 03/14/2024	<i>Spring Recess</i>	
Week 10 03/21/2024	<i>Midterm Exam</i>	
Week 11 03/28/2024	Property rights, unknown costs, and enforcement	Kolstad, Ch. 13, 15, and 16
Week 12 04/04/2024	Long Run Economic Growth Model and the Environment	Kolstad Ch. 20
Week 13 04/11/2024	Sustainable Development and Resource Management	
Week 14 04/18/2024	Group Presentations	
Week 15 04/25/2024	Group Presentations	

Academic Integrity

The School of International & Public Affairs does not tolerate cheating and/or plagiarism in any form. Those students who violate the Code of Academic & Professional Conduct will be subject to the Dean's Disciplinary Procedures. The Code of Academic & Professional Conduct can be viewed online:

<http://bulletin.columbia.edu/sipa/academic-policies/Links to an external site.>

Academic dishonesty includes failure to properly cite ideas in your work that are not originally yours. Please familiarize yourself with the proper methods of citation and attribution. The School provides some useful resources online; we strongly encourage you to familiarize yourself with these various styles before conducting your research:

<http://bulletin.columbia.edu/sipa/academic-policies/Links to an external site.>

Violations of the Code of Academic and Professional Conduct will be reported to the Associate Dean for Student Affairs.

School Policies and Expectations:

Accessibility Statement – I want you to succeed in this course.
Contact disability@columbia.edu for learning accommodations.

Names/Pronouns – You deserve to be addressed in a manner that reflects your identity. You are welcome to tell me your pronoun(s) and/or name (if different from University records) at any time, either in person or via email.

Discrimination – We embrace the diversity of gender, gender identity & expression, sex, sexual orientation, race, ethnicity, national origin, age, religion, disability status, family status, socioeconomic background, and other visible and non-visible identities. Columbia University does not tolerate unlawful discrimination, discriminatory harassment, sexual assault, domestic violence, dating violence, stalking, or sexual exploitation and all such conduct is forbidden by Columbia University Policy.

Duty to Report – You deserve a University community free from discrimination, harassment, and gender-based misconduct including sexual harassment, sexual assault, domestic and dating violence, stalking, and sexual exploitation. It is therefore University policy to require Columbia faculty and staff to report to EOAA any instance or allegation of prohibited conduct involving any undergraduate or any graduate student that is disclosed to, observed by, or otherwise known to that employee. This requirement to report is in place to help ensure that students are provided appropriate resources and to allow the University to mitigate harm to our community.

Confidential Resources - There are confidential resources on campus who do not have a Duty to Report, including:

- Sexual Violence Response & Rape Crisis/Anti-Violence Support Center (SVR)
- Ombuds Office
- Medical Services
- University Counseling and Psychological Services
- University Pastoral Counseling
- Columbia Office of Disability Services

University employees working in a confidential capacity will not report information shared with them.

Inclusion - In the MPA in Environmental Science and Policy program faculty and staff are committed to the creation and maintenance of “inclusive learning” spaces – classrooms and other places of learning where you will be treated with respect and dignity, and where all individuals are provided equitable opportunity to participate, contribute, and succeed.

In our Research Methods and Quantitative Techniques in Policymaking and Management course, all students are welcome regardless of race/ethnicity, gender identities, gender expressions, sexual orientation, socio-economic status, age, disabilities, religion, regional background, Veteran status, citizenship status, nationality, and other diverse identities that we each bring to class.