

Microeconomics for Policy Analysis II

Course Title: Microeconomics and Policy Analysis II – Spring 2025

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

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

Textbooks are not required. There is a mandatory reading list for the course which will be posted separately. Lecture notes are based on the following books:

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. There will be a review session during the recitations for the week of the midterm exam. Each student is required to take the examination.

2. *Final Examination (30%)*

The final exam will be given in class during the finals week. There will be a review session during the recitations and the class during the last week of the semester. Each student is required to take the examination.

3. *Problem Sets (30%)*

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

4. *Class Presentation (10%)*

Over the semester, students are expected to read the assigned readings before the class. A list of readings will be listed in the Courseworks within the next week. Each student is expected to select one paper from the reading list and present it in the class.

1. *Class Participation (5%)*

Students are expected to attend lectures as well as one of the two sessions of recitations every week.

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 01/23/2025	Course logistics, review of efficiency in competitive markets	
Week 2 01/30/2025	Issues in Environmental Economics	Kolstad, Ch. 1, 2, and 3
Week 3 02/06/2025	Externalities and public goods	Kolstad, Ch 4 and 5
Week 4 02/13/2025	Decision making in environmental policy	Kolstad Ch 6

Week 5 02/20/2025	Demand for Environmental Goods	Kolstad, Ch. 7
Week 6 02/27/2025	Benefit Estimation Methods: Hedonic Pricing	Kolstad, Ch. 8
Week 7 03/06/2025	Benefit Estimation Methods: Travel Cost and Contingent Valuation	Kolstad Ch. 9 and 10
Week 8 03/13/2025	<i>Midterm Exam</i>	
Week 9 03/20/2025	<i>Spring Recess</i>	
Week 10 03/27/2025	Regulation, Taxes and Subsidies	Kolstad Ch. 11 and 12
Week 11 04/03/2025	Property rights, unknown costs, and enforcement	Kolstad, Ch. 13, 15, and 16
Week 12 04/10/2025	Long Run Economic Growth Model and the Environment	Kolstad Ch. 20
Week 13 04/17/2025	Sustainable Development	
Week 14 04/24/2025	Resource Management	
Week 15 05/01/2025	Final Exam Review	
Week 16	<i>Final Examination</i>	

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.

Prohibited AI Use - Intellectual honesty is vital to any academic community and for my fair evaluation of your work. All work submitted in this course must be your own and completed following the University's academic regulations. You may not make use of ChatGPT or any other AI composition software. Any unauthorized use of AI shall be treated similarly to unauthorized assistance or plagiarism (page 11 of Standards and Discipline). AI tools not explicitly allowed by the instructor(s) of a course will be considered a violation of academic integrity.

Since writing, analytical, and critical thinking skills are part of the learning outcomes of this course, all writing assignments should be prepared by the student. Developing strong competencies in this area will prepare you for a competitive workplace. Therefore, AI-generated submissions are not permitted and will be treated as plagiarism.