

Syllabus for PPHA 36930: Environmental Economics. Winter 2022.

Instructor : Shaoda Wang

Tuesday/Thursday: 11.00-12.20pm. Keller 2112

Course Description: This course presents a broad-based treatment of the theory and application of environmental economics. Topics are introduced in the context of real-world environmental policy questions (with special emphasis on energy policy), then translated into microeconomic theory to highlight the salient constraints and fundamental trade-offs faced by policymakers. Topics include property rights, externalities, Pigouvian taxes, command-and-control regulation, cap-and-trade, valuation of environmental quality, cost-benefit analysis, policymaking under uncertainty, and inter-regional competition. Prerequisites: Intermediate microeconomics.

Required Text: Kolstad, Charles D., *Environmental Economics*, 2nd Edition: March 31, 2010. ISBN-10: 0199732647

Assignments and Grading: Problem Sets: 40%, final exam 60%.

Course Topics:

Section 1: Introduction: The Market Does (not) Work

Microeconomics Review: Kolstad, Chapters 1 - 4.

Fullerton and Stavins, "How Economists See the Environment" *Nature*, Vol. 395. Oct 1, 1998. Pg 433 - 434.

Externalities: Kolstad, Chapter 5.

Section 2: Cost-Benefit Analysis

Kolstad Chapter 6

Arrow, et al. "Is There a Role for Cost-Benefit Analysis in Environmental, Health and Safety Regulation?"

Goulder and Stavins, "An Eye on the Future"

Pindyck, "Uncertainty in Environmental Economics"

Kelman, "Cost-Benefit Analysis: An Ethical Critique" and replies

Graham, "The Evolving Regulatory Role of the U.S. Office of Management and Budget"

Section 3: Demand for Environmental Quality

Kolstad Chapter 7

Hedonic Methods: Kolstad Chapter 8

Contingent Valuation (Constructed Markets): Kolstad Chapter 10

Portney, "The Contingent Valuation Debate: Why Economists Should Care"

Hanemann, "Valuing the Environment Through Contingent Valuation"

Diamond and Hausman, "Contingent Valuation: Is Some Number Better than No Number?"

Section 4: Risk and Uncertainty

The Value of a Statistical Life: Kolstad Chapter 8F, 18A, B
Cameron, "Euthanizing the Value of a Statistical Life"
Aldy and Viscusi, "The value of a statistical life: a critical review of market estimates throughout the world"

Section 5: Eureka! Property Rights and Pigouvian Taxes

Pigouvian Taxes: Kolstad Chapter 12.
Property Rights: Kolstad, Chapter 13.
Coase, "The Problem of Social Cost," Journal of Legal Studies, Vol 3, 1960. Pgs 1 - 44.
Stigler, *Memoirs of an Unregulated Economist*, Chapter 5, "Eureka!"

Section 6: Controlling Quantities

Kolstad Chapter 11

Section 7: Instrument Choice: Prices versus Quantities

Kolstad Chapters 15 and 16.
Goulder and Parry "Instrument Choice in Environmental Policy"
Stavins, "What Can We Learn from the Grand Policy Experiment? Lessons from SO₂ Allowance Trading"
Metcalf, "Market-Based Policy Options to Control U.S. Greenhouse Gas Emissions"
Keohane, Revesz, and Stavins, "The Choice of Regulatory Instruments in Environmental Policy"

Section 8: The Race to the Bottom

Inter-regional and International Competition: Kolstad Chapter 19.
The Environmental Kuznets Curve: Kolstad Chapter 20.
Porter and van der Linde, "Toward a New Conception of the Environment-Competitiveness Relationship"
Frankel, "The Environment and Globalization"

Grade: 50% on two review questions, 50% final exam. The final exam will be based on the book as well as on the lectures in class. Final exam will be a mix of multiple choice and essay questions.

Emails: You can reach me at shaoda@uchicago.edu. Please write the email with a subject in the format of "[PPHA 36930] X" (substituting "X" with a brief title of your questions or issues). In the email your full name should be included. Please feel free to write me on administrative issues that are not covered in the syllabus, or about your concerns related to the course. Specific questions on the course material are supposed to be answered in lectures or office hours.