

Course Syllabus for PA 5722, Spring 2020
Economics of Environmental Policy



Humphrey School of Public Affairs

University of Minnesota

Room: HHH 35, West Bank

Time: Mon/Wed 2:30pm - 3:45pm

Instructor: [Dr. Bonnie Keeler](#)

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Office Hours: Room 158 HHH Time: TBD

Teaching Assistant: Maggie Rogers

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Description: This course will explore how tools from economics are applied to environmental policies, including the management of clean air, clean water, climate change mitigation, land use, and the protection of biodiversity. All of these environmental challenges come with complex tradeoffs and require decisions about how to allocate scarce resources among competing objectives. The discipline of economics has powerful tools to help decision makers weigh benefits and costs, anticipate unintended consequences, and design policies and plans that maximize efficiency. However, the toolkit of economics also has limitations - both practical and ethical - that should also be considered, especially when applying market-based instruments to environmental and public goods problems.

The course will cover fundamental topics in economics as they apply to environmental issues. These include:

- Economic valuation of environmental goods and services
- Cost benefit analysis
- Market failures and externalities
- Governance of private and public goods
- Evaluating tradeoffs under uncertainty
- Measuring sustainable development
- Equity and distributional considerations
- Role of the market, state, and civil society in addressing environmental issues

The course begins by getting into “the weeds” of a few current problems in environmental policy and decision-making. We will then learn and apply economic tools and concepts to these problems as a means of building a practical toolkit in economic analysis. The course will also explore alternative approaches to neoclassical economics, including advances in behavioral economics, ecological economics, and feminist economics.

Texts:

[Markets and the Environment, Second Edition](#), by Nathaniel Keohane and Sheila Olmstead. Available for free via the UMN libraries (M&E on syllabus)

[Core The Economy](#): Free online economics text

The two online (free) texts are designed to supplement learning and provide a background for students who need a refresher on core concepts in economics. Additional readings and resources will be provided on Canvas. All readings and course plans subject to modification and substitutions (with advance notice).

Evaluation and Assignments:

Concept quizzes: 25%
 Homework/Reflections: 30%
 Cost-benefit assessment (teams of 3-4) 20%, Due April 1st

Summary of Deadlines:

Course Schedule: *Subject to change*

Date	Lecture/Discussion Topic	Readings
Wed. Jan 22	Econ x STEP: Why economics is foundational to an understanding of science, technology, and environmental policy	M&E: 1-10
Mon. Jan 27 Wed. Jan 29	A brief history of economics Contemporary debates about the role of economics. Does economics hold a privileged position in policy analysis?	Excerpt from Chang (2014) Economics: A user's guide: Chapter 3 Core Econ: Unit 1 The Capitalist Revolution The end of economics Has economics failed us - hardly The value of valuing nature
Mon. Feb 3	Welfare analysis - what are we measuring	M&E: 35-48,

Wed. Feb 5	when we measure utility? An economic theory of welfare: value, utility, preferences, prices	Chapter 12: Welfare theory and valuation Bockstael & Freeman pg. 519-522 M&E: 11-30 Here's how economists do the numbers
Mon. Feb 10	Production functions - linking changes in the environment to impacts on human wellbeing	Polasky & Segerson (2009) Integrating Ecology and Economics in the Study of Ecosystem Services Keeler et al. 2012 PNAS
Wed. Feb 12	InVEST lab	
Mon. Feb 17	Markets and market failure, public goods and externalities	Core: Markets efficiency and public policy M&E: 49-68
Wed. Feb 19	Benefit cost analysis: Theory and practice	Sunstein: The Cost Benefit Revolution
Mon. Feb 24	Concept Quiz #1	
Wed. Feb. 26	Non-market valuation	Dumas et al. 2005 M&E: 11-22, 80-97
Mon. March 3	Non-market valuation, cont.	Roberts 2012 Grist Resources Radio: Carbon Tax
Wed. March 5	Efficiency and equity	M&E: 69-79 http://www.hup.harvard.edu/catalog.php?isbn=9780674430006&content=reviews
Spring Break (March 7th to 15th)		
Mon. March 16	Case: Plastic pollution	REEP 2019 Abbott: economics of plastic pollution in REEP 19
Wed. March 18	Case: Plastic pollution, cont.	Planet Money 2 part series on plastic recycling http://www.startribune.com/is-what-we-toss-in-the-big-blue-bins-actually-getting-recycled/512909491/
Mon. March 23	Market solutions Ian Luby guest lecture	M&E: 139-167 Luby - cheaper when drier Salzman 2013 The 5 P's

Wed. March 25	Market solutions cont.	M&E: 168-198, 199-230 Kinzig et al. 2011 Science
Mon. March 30	State solutions (regulations, taxes, incentives)	Smith 1776 Wealth of Nations Sandel The Moral Limits of Markets
Wed. April 1	Sustainable development and green accounting, inclusive wealth	M&E: 231-253
Mon. April 6	Concept Quiz #2	
Wed. April 8	Solving the commons - Ostrom	Ostrom 2010 Janssen et al. 2010 Science Stavins 2011
Mon. April 13	Economics of biodiversity and cultural resources	Chan et al. 2016 PNAS Krulwich 2013 NPR
Wed. April 15	What does economics say about equity?	Ariely TED Rawls theory of justice
Mon. April 20	Behavioral economics	OECD and EV Policy Design Shogren 2012 Falk and Heckman 2009 "Lab experiments and the social sciences"
Wed. April 22	Ecological economics	Spash 2013 Ecol Econ Intro to Ecological Economics
Mon. April 27	Reflection and synthesis	Hahn 2000 The impact of economics on environmental policy Cropper 2000 Has economic research answered the needs of environmental policy?
Wed. April 29	Feminist econ Experimental econ Reflection and synthesis, cont.	Benbear & Stavins 2007 Second-best theory and multiple policy instruments
Mon. May 4: Last day of Spring semester	Concept Quiz 3	
Position paper: An econ take on a contemporary environmental policy case		

Evaluation and Assignments:

- I. Homework/Reflections 25%
- II. Concept quizzes, 10% + 10% + 10%
- III. Cost benefit assignment, 25%
- IV. Position paper, 20%

Canvas

All of our class readings, resources and assignments are available on the course Canvas site. Find the site at canvas.umn.edu, or go to “Key Links” on [MyU.umn.edu](https://myu.umn.edu) and scroll down to Canvas. For help with Canvas, go to <https://z.umn.edu/CanvasHelpandSetup> or click the “Canvas Help” link on our course Canvas site.

Set Your Canvas Notification Preferences

This course depends upon your ability to receive communications from your instructor about the class. It's important that you set up your Canvas “notification preferences” to choose how and when you'd like to receive messages via text, email, or both. Find easy-to-follow instructions at “How do I set my Canvas notification preferences as a student?": <https://community.canvaslms.com/docs/DOC-10624-4212710344>. I **strongly recommend** that you opt to receive notification of Announcements, Conversation Messages, and Added to Conversation so that you don't risk missing important class communication.

Name and Pronoun Usage

I will happily honor your request at any point to address you by your correct name, gender pronoun, or any other manner you would like to be referred. If you like, I will also instruct class members to do the same. Please advise me of how you would like to be referred to in class.

Use of Personal Electronic Devices in the Classroom

Using personal electronic devices in the classroom setting can hinder instruction and learning, not only for the student using the device but also for other students in the class. My preference is for students to take notes in a notebook, instead of on a laptop to minimize the temptation to browse the internet during class. It is quite apparent when students are using their laptop, phone, or tablet to view non-course content as surrounding classmates can't help but register their interest. Do not create distractions that negatively affect the learning experience of your peers.

Missing class and coursework extensions

Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances.

There are situations that may arise where you need to request an extension for a class assignment. If this occurs, email me with your request in advance of the due date and include a

proposed timeline for completion of the assignment. I do my best to grant extensions to all reasonable requests.

Mental Health and Stress Management Services

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce your ability to participate in daily activities. There are advisors in the Humphrey Student Services office who are trained and experienced counselors. They are available at short notice to address any concerns you have and provide further resources within the University - Humphrey Student Services, HHH 280, (612) 624-8162. You can learn more about the broad range of confidential mental health services available on campus at: <http://www.mentalhealth.umn.edu>.

Disability Accommodations:

The University of Minnesota views disability as an important aspect of diversity, and is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center (DRC) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations. If you have, or think you have, a disability in any area such as, mental health, attention, learning, chronic health, sensory, or physical, please contact the DRC office on your campus (UM Twin Cities - 612.626.1333) to arrange a confidential discussion regarding equitable access and reasonable accommodations.

Students with short-term disabilities, such as a broken arm, can often work with instructors to minimize classroom barriers. In situations where additional assistance is needed, students should contact the DRC as noted above. If you are registered with the DRC and have a disability accommodation letter dated for this semester or this year, please contact me early in the semester to review how the accommodations will be applied in the course.

Access to readings and materials after semester

Students may lose access to Canvas sites and course reserves at the end of the semester. If you'd like to download class material (depending on copyright) or your own work for personal use, please do so during the semester.

University and School policies

For links to University of Minnesota and Humphrey School policies, please click the "U of M Policies" link on our course Canvas site, or see <https://z.umn.edu/PolicyStatements>. Policies include information on student conduct, scholastic dishonesty, sexual harassment, equal opportunity, disability accommodations, and more.