

Econ 8545: Environmental Economics II

Department of Economics
University of Colorado Boulder
Prof. Stephanie Weber

Fall 2024

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Office Hours: W 9-10 am **by appointment**
Office: ECON 112

Class website: Canvas
Class Hours: T/Th 2-3:15 pm
Class location: ECON 5

Course overview

This is a doctoral-level course in environmental and energy economics. Topics to be covered include the effects of environmental regulation, measurement of damages from pollution, energy markets, natural resource economics, and climate change economics. The goal is to provide students interested in these topics the tools necessary to begin conducting their own research. This is the second course in a two-course sequence, with a focus on empirical methods.

Course materials

There is no required textbook for this course. The reading list, drawn primarily from published papers in academic journals and a select number of unpublished working papers, will be provided in a separate document on Canvas. Readings should be available electronically, but please contact me if you have difficulty downloading the required readings. Students are expected to have read all materials prior to class and should be prepared to discuss and answer questions about the readings.

Grading

Course grades will be based on the following breakdown:

25% Paper summaries + in-class discussions
25% Quizzes
15% Referee report
40% Research proposal + presentation

Paper summaries

Please come to class each day ready to discuss the assigned reading. Prepare a brief summary of each paper and submit it on Canvas by 9 am before each class. In your summaries, discuss the empirical approach, including the data and the identification strategy for the parameter(s) of interest, the paper's contributions, and any major assumptions or limitations of the study. You may also note any questions you have about the paper.

Quizzes

There will be 4 take home (open book) quizzes on **September 17, 2024, October 8, 2024, October 29, 2024, and November 21, 2024**. If you have a conflict with any of these dates, please contact me during the first week of class to make arrangements.

Referee report

Each student is required to submit one original referee report on an unpublished empirical paper in environmental economics. I will select several possible papers from the NBER EEE or similar working paper series. The report should not exceed 4 pages. Your report should (briefly) summarize the main contribution of the paper, strengths and weaknesses and areas for improvement. Your goal is to critically evaluate the manuscript and provide feedback the author(s) could use to improve their work. The referee report is due **Thursday, Nov. 14**.

Research proposal

One goal of this course is to prepare you to do original research. Thus, one of the major outputs of this class will be a detailed research proposal, for which you will submit both a written proposal on the final day of class and do a brief presentation during the final two weeks. Research is done in stages, so there will be a number of intermediate deadlines, after which you will receive feedback from me and/or your peers. A preliminary list of 3-5 potential research questions, including a discussion of data sources for empirical projects, is due on Canvas by **September 12, 2024**. We will schedule one-on-one meetings the following week to discuss these ideas. A more detailed discussion of the literature, with an emphasis on your contribution relative to existing work, and a more fleshed out data section for those working on empirical papers is due on Canvas by **October 17, 2024**. A model/estimation section is due on Canvas by **November 7, 2024**. Finally, students will give brief presentations during the final two weeks of class and submit a final research proposal on Canvas by **December 12, 2024**.

The deadlines for each component are listed below:

Preliminary research questions	September 12, 2024
Lit review/data	October 17, 2024
Model/estimation	November 7, 2024
Presentations	December 3/5/10/12, 2024
Final proposal	December 12, 2024

Schedule

Each week, we will cover a different topic. The reading list, containing required and recommended papers, is posted on Canvas, and is subject to change (I will notify you of any changes with at least one week's notice). The broad topics covered each week are listed below:

1. Week 1 (Aug. 27, 29): Introduction, reduced form vs. structural
2. Week 2 (Sept. 3, 5): Quantifying damages from air pollution
3. Week 3 (Sept. 10, 12): Emissions regulations
4. Week 4 (Sept. 17, 19): Fracking and oil markets
5. Week 5 (Sept. 24, 26): Electricity demand and markets
6. Week 6 (Oct. 1, 3): Innovation and technical change
7. Week 7 (Oct. 8, 10): Behavioral economics and energy efficiency
8. Week 8 (Oct. 15, 17): Vehicles and transportation policy
9. Week 9 (Oct. 22, 24): (Second best) policy design and policy enforcement
10. Week 10 (Oct. 29, 31): Natural disasters and insurance
11. Week 11 (Nov. 5, 7): Water
12. Week 12 (Nov. 12, 14): Natural resources
13. Week 13 (Nov. 19, 21): Climate change
14. Week 14 (Dec. 3, 5): Presentations
15. Week 15 (Dec. 10, 12): Presentations

Campus Policies

Classroom Behavior

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation, or political philosophy.

For more information, see the [classroom behavior policy](#), the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#).

Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website. If you have a temporary illness, injury or required medical isolation for which you require adjustment, a simple email to me will suffice.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the [Honor Code](#). Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. Understanding the course's syllabus is a vital part in adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: honor@colorado.edu, 303-492-5550. Students found responsible for violating the Honor Code will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

In addition, any problem set or exam on which a student is found to be cheating will automatically receive a zero.

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits [protected-class](#) discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. These behaviors harm individuals and our community. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who believe they have been subjected to misconduct can contact OIEC at 303-492-2127 or email cureport@colorado.edu.

Information about university policies, [reporting options](#), and [support resources](#) can be found on the [OIEC website](#).

Please know that faculty and graduate instructors have a responsibility to inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that individuals impacted receive an outreach from OIEC about their options for addressing a concern and the support resources available. To learn more about reporting and support resources for a variety of issues, visit the [Don't Ignore It page](#).

Religious Accommodations

Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please communicate the need for a religious accommodation in a timely manner. For this class, please reach out immediately if you anticipate conflicts with the midterm or final exams.

See the [campus policy regarding religious observances](#) for full details.

Mental Health and Wellness

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact [Counseling and Psychiatric Services \(CAPS\)](#) located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through [Academic Live Care](#). The Academic Live Care site also provides information about additional wellness services on campus that are available to students.