ECON 330T – Spring 2026
Methods of Environmental Policy Analysis

Class Meetings:
  Section 35320:   TTH 12:30pm - 1:45pm in GAR 0.102

Instructor: Jackson Dorsey
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  Office Hours: Thursdays 2:00pm - 3:00pm in BRB 3.130

Teaching Assistant: Yiqun Zhao
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Office Hours: Friday 3:00pm - 4:00pm on Zoom (Link)

Questions? Contact the TA First: For all course-related questions, your first point of contact should be your TA: yiqun.zhao@utexas.edu

Course Summary: Data is an increasingly common part of environmental policy discussions and debates. How much has the planet warmed over the past century? How do increases in air pollution impact the health of children and the elderly? Do regulations on carbon emission increase household energy bills? If cars become more fuel efficient do individuals choose to drive more? Can public utilities reduce energy usage by providing households with better information? These are all critical questions for policymakers, regulators, organizations, and businesses that aim to achieve environmental and economic objectives.

    This course will introduce students to methods from econometrics and statistics for answering these questions. You will learn how to use data for prediction—how to specify prediction methods and measure their accuracy—as well as how to use data to estimate causal effects. Along the way, you will hear again, and again that correlation is not causation. But you will also learn that measuring correlations can be valuable, too.

Course Outcomes:

1. Become familiar with current environmental policy questions and debates and learn how to use data to answer these questions.

2. Estimate, interpret, and justify commonly used econometrics models for cross-sectional and panel data.

3. Extract information from datasets that government organizations and/or businesses will value, and properly address challenges to your econometric analyses if and when they arise.

4. Identify strengths and weaknesses in others' environmental policy analyses, as well as critique, and justify econometrics models.

Prerequisites: ECO 304K

Mode of Instruction: This course will be delivered in a flipped classroom format. Students will watch video lectures each week and complete pre-assessment quizzes on the posted content. Each week we will meet have a required in-person meeting on Tuesday to discuss the week's content and work through practice problems. There will also be an optional class meeting on Thursdays. On Thursdays, I will be available to answer additional questions about course content. You can also use the Thursday session to work on the weekly problem set and ask me questions while completing your work.

Readings: There is no required textbook. Selected readings will be posted on canvas through out the semester. I highly recommend the following book as a supplement the course material:

Angrist, Joshua D., and Jörn-Steffen Pischke. *Mastering 'Metrics*. Princeton University Press 2015.

Grading Scale:
A: 94–100; A-: 90–93.9
B+: 88–89.9; B: 83–87.9; B-: 80–82.9
C+: 78–79.9; C: 73–77.9; C-: 70–72.9
D+: 68–69.9; D: 63–67.9; D-: 60–63.9
F: < 60

Exams: There will be 2 in-class exams. **The exams will be held in-person and there will not be a remote option. If you will not be able to attend the exams you should not be enrolled in the course.**

Missed Exams: There will be **no** make ups for exams without an excused absence. If you have an acceptable excuse (these must be brought in beforehand except for sickness, injuries, accidents, etc) an alternative exam will be scheduled. Students missing an exam must obtain documentation from UT Student Emergency Services, the Department of Athletics, or another on-campus authority. If you miss an exam and do not notify us beforehand, you must provide valid documentation explaining why you missed the exam and were not able to let us know beforehand.

Pre-assessment quizzes: Every week, I will post several videos with lecture content for the following week. Students will be expected to watch the videos and complete quiz questions on the associated video content. The pre-assessment quizzes will be due each Monday at 11:59 PM. I will drop your lowest pre-assessment score when calculating your final grade

Problem Sets: The most important skill learned in this course is problem-solving. There is no substitute for struggling through problems on your own or in a small group. Problem sets will be due each week on Fridays at 11:59 pm. Submit all problem sets through Canvas. I will take off 25% for late problem sets turned if they are turned in before I post solutions. No credit will be given after solutions are posted. I will generally post solutions on Mondays or Tuesdays. I encourage you to work on the problem set in a team. However, you must write up and turn in your own solution. If you work with a group, please write the names of any other students that you collaborated with at the top of the assignment. I will drop your lowest problem score when calculating your homework grade.

AI Tools Policy: AI tools can be valuable learning aids, but overreliance prevents skill development. You may consult AI tools to help learn concepts or debug code, but your submitted work must reflect your own understanding. Document how you used AI (if at all). You are responsible for the accuracy of all submitted work, regardless of its source. Remember that you will need to demonstrate mastery of course content on exams without AI assistance, so it is in your best interest to use AI tools only as a supplement to your own learning rather than a substitute.

Class Attendance and Participation: Lecture attendance is highly recommended but not required. At the start of the semester, students can choose between two grading policies. The default grading policy—Option A—does not include any component for attendance and participation during in-class lectures. Option B allows students to earn points by attending classes based on response rates to in-class attendance polls. Students may miss up to two lectures with no questions asked. Students' grading policy choices are permanent and cannot be changed after the first week of the semester. Students that do not fill out the Canvas survey at the start of the semester will automatically default to Grading Policy Option A. If a student misses more than two lectures and provides documented excuses, they will be permitted the option to switch back to Option A.

Note: Starting in Week 2, attendance on Thursdays is fully option (except for exams and presentations). We will never take attendance on Thursdays (except for exams and presentations).

Grading Weight Policies:

Option A (Default)	**Option B - Participation Component**
Exams (2): 65%	Exams (2): 55%
Pre-assessment quizzes : 10%	Pre-assessment quizzes: 10%
Problem Sets: 15%	Problem Sets: 15%
End-of-Semester Presentation: 10%	End-of-Semester Presentation: 10%
	Attendance and Participation : 10%

Lecture Recordings: This class is using the Lectures Online recording system. This system records the audio and video material presented in class for you to review after class. Class recordings are reserved only for students in this class for educational purposes and are protected under FERPA. The recordings should not be shared outside the class in any form. Violation of this restriction by a student could lead to Student Misconduct proceedings. Links for the recordings will appear in the Lectures Online tab on the Canvas page for this class. You will find this tab along the left side navigation in Canvas. To review a recording, simply click on the Lectures Online navigation tab and follow the instructions presented to you on the page. You can learn more about how to use the Lectures Online system at http://sites.la.utexas.edu/lecturesonline/students/how-to-access-recordings/

Lecture Notes: Lecture notes and videos will be posted on the course Canvas site.

Grade Appeals: If you wish to appeal your grade on an assignment you must bring it to our attention, in writing, within 24 hours of when the assignment is returned. I reserve the right to regrade the entire assignment and the new grade will be final.

Classroom Conduct: Electronic devices should only be used in the classroom for class purposes. These devices (laptops, tablets, phones, etc.) are prohibited during exams. If a student's use of an electronic device is disruptive to teaching and/or learning, I will ask that the student discontinue the use of that device. Please be considerate of those around you. I reserve the right to reduce attendance points for students that are not respectful during lecture.

Academic Integrity: For homework assignments, you may consult with other students and/or us (during office hours). However, each person must complete his or her own assignment. You must complete exams without help. This class will follow the University's Code of Academic Integrity. Students who violate University rules on academic misconduct are subject to the student conduct process and potential disciplinary action. A student found responsible for academic misconduct may be assigned both a status sanction and a grade impact for the course. The grade impact could range from a zero on the assignment in question up to a failing grade in the course. A status sanction can range from probation, deferred suspension and/or dismissal from the University. To learn more about academic integrity standards, tips for avoiding a potential academic misconduct violation, and the overall conduct process, please visit the Student Conduct and Academic Integrity website at: http://deanofstudents.utexas.edu/conduct.

Accessibility: The University of Texas is committed to ensuring access to learning opportunities for all students. If you have an access need, please contact me or Student Disability Services.

Important Dates:

Exam 1: Thursday, March 5th
Exam 2: Thursday, April 9th
End-of Semester Presentations: Tuesday, April 14th; Thursday, April 16th Tuesday, April 21st; and Thursday, April 23rd
Tentative Course Schedule:
*Methods and Applications are subject to change. Reading refer to reference materials in the *Mastering Metrics* book.

Week	Date	Topics/Methods	Environmental Applications	HW	Reading
1	1/13	Introduction, R			
2	1/20	Statistics intro, hypothesis tests	Testing for climate change, air quality	1	Ch 1A
3	1/27	Correlation vs. causation, experiments	Energy efficiency programs, the rebound effect	2	Ch 1
4	2/3	Introduction to regressions	Effects of heat and pollution on health	3	Ch. 2
5	2/10	Regression inference	Using real estate prices to value environmental amenities	4	
6	2/17	Multiple regression, dummy variables	Drinking water quality and contaminants	5	Ch. 2A
7	2/24	Omitted variables bias	Effects of environmental regulation on the economy	6	Ch 2
8	3/3	Review			
	3/5	Exam 1			
9	3/10	Binary outcomes, interactions, nonlinearities	Regulatory compliance, environmental justice	7	
10	3/17	**No Class Spring Break**			
11	3/24	Difference in differences models	Government green subsidies	8	Ch. 5
12	3/31	Fixed effects models	Effects of climate change on agriculture	9	Ch. 5
13	4/7	Review			
	4/9	Exam 2			
14	4/14	End-of-Semester Presentations			
	4/16	End-of-Semester Presentations			
15	4/21	End-of-Semester Presentations			
	4/23	End-of-Semester Presentations			