

ECO 39556– Environmental Economics
Spring 2025, Department of Economics, Hunter College

Lecturer : Bipasha Chatterjee **Email:** bc514@hunter.cuny.edu
Weekly Schedule: Monday and Thursday (In-person) from 10 AM – 11.15 AM
Office Hours: Thursday 3.30PM-4.30PM (Online/in-person – make appointments in advance)

First class: 27 January Monday

Mid Term Exam: 10 April Thursday

Last Class: 12 May Thursday

Final Exam: 16-22 May (Exact date to be announced on Hunter Website)

Holidays: 17 Feb (18 Feb classes follow Monday schedule); 12 April – 20 April (spring recess)

All announcements and reading materials will be posted in the Blackboard.

Learning Objectives

This course is an introduction to the use of economic principles and tools for the analysis of environmental problems and natural resource management and for designing appropriate policy responses. The aim of this course is to develop a set of useful economic toolbox that will allow students to address critically a wide variety of current environmental and climate problems and their proposed solutions rather than just building their knowledge of environmental issues.

The learning objectives are to understand:

1. Concepts and theories in environmental economics
2. Tools and techniques for environmental valuation
3. Institutions and instruments for designing and implementing environmental regulations and policies
4. Discussions on upcoming green financial products

At the end of the course the students will be equipped to answer questions such as (but not limited to):

- Why and how to place an economic value on environmental goods? For example, how much are people truly paying or willing to pay for clean water or clean air in polluted cities such as New York, Beijing or Delhi?
- What do these terms often appearing in the US media such as, 'climate mitigation,' climate 'adaptation,' 'climate resilience' and 'climate justice' actually mean?
- Can market instruments such as emissions trading reduce carbon emissions more cost effectively and efficiently than carbon taxes? What is disadvantage of offsetting and carbon trading?
- What are the main international agreements on natural resource conservation?
- What are the new types of financial options that are being designed in countries for making cities and communities more resilient to environmental hazard and climate related market shocks; how are those kind of financial products useful in states like Texas, Florida, California, and Puerto Rico that are exposed to recurrent storms, floods and wildfire?

Course Materials

The textbooks for the course are Main: 1) **Environmental Economics and Sustainability (3rd edition) by Ahmed Hussen**; old editions are available online too. Since environmental economics is an evolving and a relatively new

area of study, some parts of the book may not be relevant for the current policy topics covered in the class. **Therefore, lectures will frequently diverge from the book in terms of order and depth of coverage.** The web links to the additional readings to support each lecture will be provided in the class.

Evaluation

Class participation, attendance and attitude: 5%

Mid Term (25%): Thursday, 10 April 2025

Essay (30%): Written over 4 weeks in April; Summary presentation on the last week of the semester in May

Final exam (40%): Written exam (in-person); date to be announced on Hunter Website

There will be **no make up exams** except in the case of a **serious and documented** emergency. In this case, I will need to be notified within 24 hours of the exam. Examinations will all be closed book. No books, notes or electronic devices will be allowed into the examination. **The final exam is not cumulative**, i.e. it will only cover material **not** covered in the midterm. The essay requirements are such that it cannot be and must not be written by ChatGPT or AI. I do not inform students when I see paragraphs from their work taken from ChatGPT – I simply cross check through various questions in class and test their actual knowledge regarding their essay. I lower their grade if I think their actual understanding does not match with their writing.

Hunter College regards act of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The college is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

The class is highly interactive and collaborative. Students should be prepared to be called out in class by name to answer questions from the professor, respectful towards the professor and their peer in class, comment on each other's work thoughtfully, and bring energy to the group discussions. 5% of the final grade will be based on student participation, attendance and their attitude and behavior in class. I will give every student a grade out of 100 points on participation, attendance and attitude in the classroom and it will be based on my close observation and my own judgement.

Protocols in class

Students are expected to attend classes in-person and only on days when the weather is very bad for travelling or I am sick I will teach online. I will take attendance (if you have a job or any other responsibilities, which prevent you from attending classes regularly, I strongly advise you not to take this course). Also, please be considerate of your classmates and arrive on time. You should be prepared to be called out by name in class and to answer questions from the professor. You are expected to be respectful towards the professor and your peer group in class. Cell phones and pagers must be turned off before the class begins. You must not keep online games and social media on while you are in class.

Please read [Hunter College's protocol](#) for other operating procedures on campus. It is your responsibility to know what affects you and what you need to do to be compliant.

Course Schedule

Time	Topics	Readings
Module A.	Environmental Economics: Concepts and Theories	
Week 1- 2	Topic: <i>Examine the</i> foundational concepts, theories in environmental economics and perspectives on the contemporary global crisis around climate change	Ch. 1 – 2
Week 3- 4	Topic: <i>Discuss the main theories in environmental economics:</i> The Tragedy of the Commons, The Limits to Growth debate; Strong vs. Weak Sustainability, the Laws of transformation of matter-energy, Climate Change Mitigation and Adaptation	Readings in blackboard
Module B.	Economic valuation of environmental goods and services and environmental projects: Tools and Techniques	
Week 5-7	Topics: <ul style="list-style-type: none"> • Revealed preference and stated preference methods • Cost-benefit analysis (CBA) • Ecological footprints 	Ch. 7 – 8 plus readings in blackboard
Module C.	Environmental Regulation	
Week 8-10	Topics: <ul style="list-style-type: none"> • Command and Control (Emissions Standards) • Market based instruments for controlling pollution (Tax, Subsidies, & Permit Trading); • Voluntary Regulation/ Voluntary Agreements; 	Ch. 4, 5, 6 plus readings in blackboard
Module D.	Group discussions on new green financing options	
Week 11- 13	Topics: <ul style="list-style-type: none"> - Sustainable/Green Bonds for mitigation of climate change - Climate Insurance for adaptation to climate change - Climate finance for resilience and environmental justice 	Ch 9,10, plus readings in blackboard
Week 14 -15	a) Essay submission & presentation of essay summary in class b) Final exam preparation in class through non-graded quiz and verbal QA sessions in class. Midterm exam will have multiple choice questions only. Final Exam will be a written exam with objective questions as well as long questions.	

ADA POLICY

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations.

Hunter College Policy on Sexual Misconduct

In compliance with the CUNY Policy on Sexual Misconduct, Hunter College affirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationship. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

- a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, on contacting the College's Public Safety Office (212-772-4444)
- b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link: <http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>

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