# ECO 39556- Environmental Economics Fall 2021 Hunter College Department of Economics

Lecturer: Bipasha Chatterjee Email: bc514@hunter.cuny.edu

Class Time: Monday (Online) and Thursday (In-person) from 9.45 AM – 11 AM

Office Hours: Thursday 12.30PM -1.30PM (Online)

**Room:** West Building W 206

First Class: Thursday August 26th, 2021 (Online)

Please see announcements in Blackboard. Links for online classes 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 air in polluted cities such as Beijing or Delhi?
- What is the true cost to Australia from its devastating bush fires?
- Can market instruments such as emissions trading reduce carbon emissions more cost effectively and efficiently than carbon taxes? What are the main international negotiation issues in the Paris Agreement?
- What do these terms often appearing in the US media such as, 'climate mitigation,' climate 'adaptation,'
   'climate resilience' and 'climate justice' actually mean?
- What are the new types of financial options (affordable climate insurance) that are being designed in African countries for making cities and communities more resilient to climate-derived market shocks; can those kind of financial products be useful in states like Texas, Florida, California, and Puerto Rico that are exposed to recurrent storms, floods and wild fire?

#### **Course Materials**

The textbooks for the course are Main: 1) Environmental Economics and Sustainability (3<sup>rd</sup> edition) by Ahmed Hussen Optional: 2) Environmental and Natural Resource Economics by T. Tietenberg. 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**

Quiz (5%): Monday every week for 10 minutes, (Online)

Mid Term (20%): Mid Term exam (in-person); date 14 October, Thursday, 9.45 AM – 11 AM

Group Essay (15%): Written over 4 weeks in November; Summary presentation on December 6<sup>th</sup> & 9<sup>th</sup>

Final examination (60%): Written exam (in-person); date 16th Dec, Thursday, 11.30 AM-1.30 PM

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 quiz and group project.

Hunter College regards acts 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.

#### Attendance and protocols in class including covid protocols

You are expected to attend classes on Mondays in-person and Thursday online. I will take attendance on Mondays and Thursdays both. 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. **Cell phones and pagers must be turned off before the class begins**.

Please read <u>Hunter College's protocol</u> for operating procedures on campus. It is your responsibility to know what affects you and what you need to do to be compliant. **There are no exceptions so please do not ask me for any**. Here are some key features of the operating procedures that affect you in the context of this course.

- 1. You are expected to attend and participate in activities for your on-campus sessions in person. No accommodations will be made beyond standard accommodations for illness and disability. If you need an accommodation, please contact the Office of AccessABILITY.
- 2. You must **remain masked at all times** in the classroom. If you are called upon to respond to a question by me, <u>and are vaccinated</u>, you may take your mask off for the duration of your response only. Your lecturer is fully vaccinated and may choose to take off mask while teaching.
- 3. You may not eat or drink in the classroom. You can take permission to leave class room for drinking water, if necessary.

#### **Course Schedule**

Time	Topics	Readings
Module A.	Environmental Economics: Concepts and Theories	
Week 1- 2	Topic: Examine the foundational concepts, theories and perspectives (neoclassical and ecological economics)	Ch. 1 – 2
Week 3- 4	Topic: Discuss the main theories in environmental economics: The Tragedy of the Commons, The Limits to Growth debate; strong vs. weak sustainability, the laws of transformation of matter-energy	Readings in blackboard
Module B.	Economic valuation of environmental goods and services and environmental projects: Tools and Techniques	
Module C. Week 8-10	Topics:  Revealed preference and stated preference methods  Cost-benefit analysis (CBA)  Environmental impact assessment (EIA)  Ecological footprints  Environmental Regulation  Topics:  Command and Control (Emissions Standards)  Market based instruments for controlling pollution (Tax, Subsidies, &	Ch. 7 – 8 plus readings in blackboard  Ch. 4, 5, 6 plus readings in
	Permit Trading);  • Voluntary Regulation/ Voluntary Agreements;	blackboard
Module D.	Group discussions on new green financing options	
Week 11- 13	Topics: - Climate Finance Green Bonds - Climate Insurance - Alternative energy finance	Ch 9,10, plus readings in blackboard
Week 14 -15	<ul> <li>a) Group project presentation.</li> <li>b) Final Exam preparation in class through non-graded quiz and verbasin class. Final Exam will be a written exam with objective questions.</li> </ul>	

## **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 (<a href="mailto:itrose@hunter.cuny.edu">itrose@hunter.cuny.edu</a> or 212-650-3262) of Colleen Barry (<a href="mailto:colleen.barry@hunter.cuny.edu">colleen.barry@hunter.cuny.edu</a> or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

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

## **Hunter College statement on Academic Integrity**

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