

CEV 406 Environmental Economics

Fall 2021-2022

Course Information

Instructor	Dr. Shihomi Ara-Aksoy Office: Department of Economics Email: sara@hacettepe.edu.tr
Time/Place	Thursdays 9:00 – 11:50 (Y2Z_04)
Office Hours:	Mondays 13:00-14:00 or by appointment
Course Website:	http://www.shihomiaksoy.org

Course Description This course provides an introduction to environmental economics and policy. Lectures are designed to provide foundations of environmental economics together with the basic micro and macroeconomics concepts for engineering students to be familiar with the economic way of thinking. Practical knowledge and techniques which become necessary to conduct an environmental cost-benefit analysis and environmental policy evaluation will be discussed.

Course Objectives By the end of this course, students are expected to (i) develop a capacity to conduct an environmental cost-benefit analysis for environmental/health policies and projects, (ii) analyze the policy alternatives, and (iii) assess the impacts of the chosen instrument. 1.

Course Requirements

1.	Midterm Exam	30%
2.	Final Exam	40%
3.	5 Quizzes*	10%
4.	Course Project**	20%
(5)	Extra Point: R-program***	5%

*5 Quizzes

It will be a short quiz testing your comprehension of each class and the previous week's lecture. There will be no make-up for these quizzes.

**Course Project

This is a group project (max 4 students, min 1). Refer to "Course Project Instruction" for the details.

***R-program

R courses will be assigned to be completed from datacamp.com platform. If you complete those course, you will get an extra point. The objective is to learn how to conduct regression analyses using R-program.

Textbooks

- Anthony E. Boardman, David H. Greenberg, Aidan R. Vining, David L. Weimer. **Cost-Benefit Analysis Concepts and Practice**. Pearson Education.

Make-up Exam **No makeup exam will be given** unless a legally acceptable document (such as medical report) is submitted. Validity of such document will be examined.

Grading

Final grade will be given entirely based on your scores under a fair and single grading policy. None of students' "special situations/needs" (e.g. scholarship, graduation, financial condition, family situation etc.) will affect the grade. No exception. If you need a certain grade, work hard.

Academic Misconduct

Please read the relevant material at <http://www.plagiarism.org/>. Detected plagiarism throughout the coursework will cause the student to be punished according to the University rules. The students are expected to know what plagiarism is and lack of knowledge is not an acceptable excuse.

Course Schedule

Week	Topics
1	Introduction: What's Environmental Economics?
2	Microeconomics Foundation <ul style="list-style-type: none">• Demand/Supply, Willingness to Pay• Utility• Market Failure• Opportunity Cost• Elasticity
3	Macroeconomics Foundation <ul style="list-style-type: none">• Basic Macroeconomic Indicators (GDP, CPI, Interest Rate, Inflation...)• PPP, Inflation and Exchange Rate
4	Cost-Benefit Analysis: Time and Money <ul style="list-style-type: none">• Discounting• Present Value/Future Value/Net Present Value• Real vs. Nominal• Time Preference
5	Fundamentals of Regression Analysis <ul style="list-style-type: none">• Introduction to R• Ordinary Least Squares• Logit Model
6	Property Rights/Externalities
7	Economics of Pollution Control (1) <ul style="list-style-type: none">• Externalities• Optimal Level of Pollution• Marginal Abatement Cost• Marginal Damage Cost
8	Midterm Exam
9	Economics of Pollution Control (2) <ul style="list-style-type: none">• Command and Control• Pollution Tax• Emission Trade
10	Climate Change Policies <ul style="list-style-type: none">• Emission Trading• CBAM
11	Environmental Evaluation (1) <ul style="list-style-type: none">• Basic Concepts• Values• WTP• VSL/VSLY

12	Environmental Evaluation (2) <ul style="list-style-type: none">• CVM• Choice Experiment• Hedonic Cost Method
13	Health Evaluation: DALY, QALY/ Cost-Effectiveness Analysis
14	Presentation