

# CEV 406 Environmental Economics

Fall 2019-2020

## Course Information

<b>Instructor</b>	Dr. Shihomi Ara-Aksoy Office: Department of Economics Email: <a href="mailto:sara@hacettepe.edu.tr">sara@hacettepe.edu.tr</a>
<b>Time/Place</b>	<b>Mondays 13:00 – 15:50 @ Y2-06</b>
<b>Office Hours:</b>	Tuesdays at 11:15 - 12:15, or by appointment
<b>Course Website:</b>	<a href="http://yunus.hacettepe.edu.tr/~sara">http://yunus.hacettepe.edu.tr/~sara</a> , <a href="http://www.shihomiaksoy.org">http://www.shihomiaksoy.org</a>

**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 in order for engineering students to be familiar with economic way of thinking. Practical knowledge and techniques which become necessary to conduct 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 environmental cost benefit analysis for environmental/health policies and projects, (ii) analyze the policy alternatives, and (iii) assess the impacts of the chosen instrument.

<b>Course Requirements</b>	1.	Midterm Exam	30%
	2.	Final Exam	40%
	3.	Class Participation	10%
	4.	HW/Project	20%

### Textbook

- Anthony E. Boardman, David H. Greenberg, Aidan R. Vining, David L. Weimer. **Cost-Benefit Analysis Concepts and Practice**. Pearson Education.
- Tom Tietenberg, Lynne Lewis. **Environmental & Natural Resource Economics**. 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.

### Disabilities

Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific need.

## Course Schedule

Week	Topics
1	Introduction: What's Environmental Economics?
2	Property Rights, Externalities
3	Economics of Pollution Control (1) <ul style="list-style-type: none"> <li>• Externalities</li> <li>• Optimal Level of Pollution</li> <li>• Marginal Abatement Cost</li> <li>• Marginal Damage Cost</li> </ul>
4	Economics of Pollution Control (2) <ul style="list-style-type: none"> <li>• Command and Control</li> <li>• Pollution Tax</li> <li>• Emission Trade</li> </ul>
5	Microeconomics Foundation of Cost Benefit Analysis <ul style="list-style-type: none"> <li>• Demand/Supply, Willingness to Pay</li> <li>• Utility</li> <li>• Market Failure</li> <li>• Opportunity Cost</li> <li>• Elasticity</li> </ul>
6	Macroeconomics Foundation of Cost Benefit Analysis <ul style="list-style-type: none"> <li>• Basic Macroeconomic Indicators (GDP, CPI, Interest Rate, Inflation...)</li> <li>• PPP, Inflation and Exchange Rate</li> </ul>
7	Cost Benefit Analysis (1): Time and Money <ul style="list-style-type: none"> <li>• Discounting</li> <li>• Present Value/Future Value/Net Present Value</li> <li>• Real vs. Nominal</li> <li>• Time Preference</li> </ul>
8	<b>Midterm Exam</b>
9	Cost Benefit Analysis (2): Valuing Impacts
10	Environmental Evaluation (1) <ul style="list-style-type: none"> <li>• Basic Concepts</li> <li>• Values</li> <li>• WTP</li> <li>• VSL/VSLY</li> </ul>
11	Environmental Evaluation (2) <ul style="list-style-type: none"> <li>• CVM</li> <li>• Choice Experiment</li> <li>• Hedonic Cost Method</li> </ul>
12	Health Evaluation: DALY, QALY
13	Cost Effectiveness Analysis/Life Cycle Cost Analysis
14	Climate Change and Policy Evaluation