

SYLLABUS

Course Title: Introduction to Environmental Economics (IKT3620)

Academic Year / Semester: 2020 Fall

Instructor: Dr. Tunç Durmaz

Office: G2-101 **Office hours:** Thu 14:00 – 15:00 or by appointment

Lecture Time / Room: Thu @ 10am / Z14

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Objective

Economics is essential to help us understand and solve many environmental problems that we face throughout the world. Indeed, people often associate economics with financial and commercial issues, but economics goes much more beyond that. We can use economic to protect the environment, rather than harm it. Thus, in this class, we set out the key insights that economics has to offer. We then take a range of environmental problems and show how these insights can help address those problems. We believe that an environmental policy that disregards (the economic behavior of) consumers and firms will not be successful in achieving its “environmental” goal. Economic actors can consider their impacts on the environment when they are exposed to the 'right' prices on environmental goods and services. Note that economic and environmental systems are interlinked. If we do not regard economic insights, we will not be able to produce cost-effective outcomes for either system.

Topics

- Introduction: Economics for the Environment
- Markets and the Environment
- Economic Growth, the Environment, and Sustainable Development
- Strategic Interaction and the Environment
- Trade and the Environment
- The Economics of Climate Change
- Energy and Resources
- The Economics of Carbon Capture and Sequestration (CCS)
- Behavior and Environmental Risk
- Forests
- The Economics of Water Pollution
- Biodiversity

Course Material

- Hanley, Nick, Jason Shogren, and Ben White. **Introduction to environmental economics.** Oxford University Press, 2013.
- Anderson, David A. **Environmental Economics and Natural Resource Management,** Routledge, 2019

Course overview:

The course is divided into two parts.

1. We will start the **first part of the course** by exploring some important concepts in economics and illustrate why they matter for environmental issues.
2. We will then look at the role of the market in determining the level of environmental quality, what ‘market failure’ means, and how markets can be used to work for the environment. The practice of placing monetary values on the environment is an important component of the economist’s toolbox.

3. We will continue with placing monetary values on the environment and deal with the methodology of cost-benefit analysis. High levels of risk and uncertainty characterize many environmental decision-making problems. Therefore, in L5 I will introduce economic approaches to these issues.
4. Sustainable development and green growth are fashionable buzzwords in environmental and development debates at present. Thus, we will investigate what economics has to contribute to this debate and to understanding the relationship between growth and indicators of environmental quality. (We will have a guest lecturer)
5. I will introduce game theory techniques as a useful tool to help understand situations in which people behave strategically, be they countries arguing over climate change conventions or fishermen competing overharvests.
6. We will lay out some basic economics of the debate over free trade and ask whether trade can always increase people's well-being. A follow-up question is whether trade restrictions can be justified on environmental grounds.

In the second part of the course, we will attempt to see how economics can help us understand the causes of a series of major environmental problems and provide environmental protection at lower cost. The issues that we will study include the economics of climate change, the economics of carbon capture and storage, forests and forest loss, water pollution, and biodiversity loss.

Grading

Attendance is not obligatory. The grading consists of one mid-term (30%), 'unannounced' quizzes (30%), and a final exam (40%). There will be no make-ups for quizzes under any circumstances.

Important

Please, refrain from bringing up your personal misfortunes (bad luck) and problems regarding your planned graduation under any circumstances. For example, that you started working or that you need to pass this course in order to graduate or any family problem or misfortune must not be addressed to me. Therefore, do not expect any response to your emails in this regard.

In case you need to use your phone, use it outside the class, not inside!.. You are welcome to come back to the class when you are done.