Environmental economics

General data

Course code:	B19GMC06E
ECTS credits:	3
Type of the course:	General elective
Semester:	Spring, semester 2 or 4
Course restrictions:	-
Course leader (with availabilities):	**Katalin Erdős** erdosk@ktk.pte.hu +36 72 501 599/ 63134
Further lecturer(s) (with availabilities):	-

1. Description and aims

Economic growth and environmental pollution seem to go hand-in-hand. Global issues give alarming signs of ecological and social crises. This course aims to provide the students with an understanding of basic concepts and principles of environmental economics. The structure of the course enables the students to understand and critically analyze global issues and the potential answers to them. It also provides them with the knowledge required for intermediate studies in environmental economics.

2. Intended Learning Outcomes (ILOs)

Upon the successful completion of this course, students should be able to:

1. explain core issues in the field of environmental economics *(PILO1)*,
2. evaluate the applicability of theories in the changing global environment *(PILO2)*,
3. examine the characteristics of efficient pollution control policies *(PILO4)*,
4. design and carry out effective small-scale research *(PILO7)*,
5. propose solutions to complex issues related to environmental pollution *(PILO1,6,8)*,
6. model the costs and benefits of pollution control policies *(PILO3)*.

(The remarks in brackets express each CILO's connection to the Program Intended Learning Outcomes (PILOs).)

3. Content, schedule

The discussion of topics is divided into the following twelve chapters:

1. Introduction, visions of the future
2. The economic approach: Property rights, externalities and environmental problems
3. Evaluating trade-offs: Benefit-cost analysis and other decision-making metrics
4. Valuing the environment: Methods
5. Economics of pollution control: An overview
6. Stationary-source local and regional air pollution
7. Climate change
8. Mobile-source air pollution
9. Water pollution
10. Toxic substances and environmental justice

11. History of environmental protection: Sustainability and welfare issues
12. Visions for the Future Revisited

4. Learning and teaching strategy, methodology

Principal teaching methodologies: quizzes, case study analysis, in-class discussion

Seminars will be introduced by a quick quiz on basic facts and causations related to the topic to be discussed to awaken students' interest and increase their sensibility on global issues. Following this, students must work in groups on real-life examples and case studies that help them practically apply theoretical concepts of environmental economics and develop critical thinking on comprehensive issues in this field. Groups then share their solutions that demonstrate both the knowledge of general theory and the individual approach of the groups.

5. Assessment

Formative assessment elements: Real-life or hypothetical case studies are processed in groups in order to enhance a better understanding of theoretical concepts and support the understanding of the application of policy tools in practice. The solutions are discussed and feedback on the groups' solutions is provided by peers and the lecturer.

Summative assessment elements:

Individual Assessment	70%	**Group Assessment**	30%

Name of the element	**Weight**	**Type**	**Details**	**Retake opportunity**	**Req.***	**Related CILOs**
Groupwork in class	30%	coursework	Groups are requested to contribute to the complete solution of the in-class work.	no	no	1,2,3,5,6
Individual research assignment	70%	coursework	In the assignment, the student has to critically discuss an issue in the field of environmental economics based on individual data collection and theoretical concepts.	one resubmission opportunity	yes	4,5

** Req.: Completion of the element is required to pass the course, irrespective of the performance in other elements.*

6. Learning materials

- Essential

David A. Anderson (2014): *Environmental Economics and Natural Resource Management*. London, New York: Routledge. 4th edition

Tom Tietenberg – Lynne Lewis (2015): *Environmental & Natural Resource Economics*. Pearson Education. 10th edition

- Recommended

Edward B. Barbier (2005): *Natural Resources and Economic Development*. Cambridge University Press.

Katalin Erdős (2014): *Environmental Economics*. Faculty of Business and Economics, University of Pécs (e-book)

Roger Pearman – Yue Ma – Michael Common – David Maddison – James McGilvray (2011): *Natural Resource and Environmental Economics*. Pearson Education. 4th edition

7. Further information

International aspects embedded with the course
Cases of pollution and pollution control policies are discussed, including their international dimension.
Ethics, Responsibility & Sustainability (ERS) aspects embedded with the course
The whole course is dedicated to sustainability, including ethics and responsibility issues in environmental economics. Topics related to air pollution and climate change, water pollution, toxic substances and environmental justice are discussed.
Connections to the world of practice of the course
Guest speakers help to demonstrate the company-level realization of environmental policies and their consequences.