SUBJECT DATASHEET

Environmental Economics

BMEGT42RRR5020-00

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
Environmental Economics

ID (subject code)	BMEGT42RRR5020-00

Type of subject
contact unit

Course types and lessons

Type	*Lessons*
Lecture	13
Practice	0
Laboratory	0

Type of assessment
obtaining signature

Number of credits
3

Subject Coordinator

Name	*Position*	*Contact details*
Dr. Horváth György Ádám	assistant professor	horvath.gyorgy@gtk.bme.hu

Educational organisational unit for the subject
Department of Environmental Economics and Sustainability

Subject website
https://edu.gtk.bme.hu

Language of the subject
magyar - HU

Curricular role of the subject, recommended number of terms
Programme: **„ESG consultant**
Subject Role: **Compulsory**
Recommended semester: **1**

Direct prerequisites

Strong	None
Weak	None
Parallel	None
Exclusion	None

Validity of the Subject Description
Approved by the Faculty Board of Faculty of Economic and Social Sciences, Decree No: 580387/26/2025 registration number. Valid from: 2025.05.28.

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

The aim of the course is to acquaint students with the theoretical and practical application of environmental economics, sustainability, and the European Union and Hungarian system of environmental regulation policy.

Academic results

Knowledge

1. The student has knowledge of the basic, comprehensive concepts, theories, facts, national economic and international connections of environmental economics;
2. mastered the basic information collection and analysis methods of environmental economics, knows its characteristic indicators;
3. knows the basics of the environmental protection fields related to his field of expertise;
4. has conceptual knowledge on a wide array of environmental impacts, loads and pressures, and pollutions, including water, air, soil and noise pollution, and is able to qualify and quantify these from a technical aspect, as well as a socio-economic aspect;
5. knows the most significant normative theories of environmental policy intervention: the Pigou theorem and the Coase tradition;
6. knows the types of environmental policy intervention solutions, their advantages and disadvantages. Knows the criteria according to which the appropriate intervention tool can be selected for a given environmental problem;
7. knows the possibilities of government failures in the planning of environmental policy interventions;
8. knows the more frequently used environmental economic analysis methods: natural capital and ecosystem service evaluation procedures, cost-benefit analysis solutions;
9. knows and is able to skilfully employ the following: biodiversity protection and the protection of econsystems, offsetting adverse effects of business operations, and carbon offsetting.
10. knows and is able to skilfully manage the following: waste management, circular economy, product charges, EPR charging.

Skills

1. By applying the learned theories and methods, the student is able to evaluate the social welfare and economic consequences of any environmental use problem, to determine the necessary range of facts and data necessary for the evaluation;
2. after evaluating the characteristics of a given, arbitrary environmental use problem, is able to determine possible alternatives for environmental policy interventions suitable for solving the problem, after comparative analysis and evaluation of these alternatives, is able to independently propose the appropriate corporate response or public policy intervention;
3. follows and interprets world economic, international, EU and national economic policy and policy processes, and is able to interpret the effects of changes on the future state of natural resources based on these;
4. able to determine the complex consequences of economic processes and organizational events;
5. can apply techniques for solving environmental problems, problem solving methods, taking into account their application conditions and limitations;
6. able to cooperate with representatives of other fields;
7. is able to formulate specialist, scientific, business and public policy information in a comprehensible way, making it understandable to the wider public.

Attitude

1. For the sake of quality work, the student demonstrates problem-sensitive, proactive behavior and takes the initiative;
2. receptive to receiving new information, new professional knowledge and methodologies, open to new tasks and responsibilities that require cooperation and independence. Strives to improve your knowledge and working relationships;
3. is open to changes in the broader economic and social environment of the given job, work organization, enterprise, strives to follow and understand the changes;
4. receptive to the opinions of others, to sectoral, regional, national and European values (including social, social and ecological, sustainability aspects).

Independence and responsibility

1. The student assumes responsibility for his analyses, conclusions and decisions;
2. assumes responsibility for compliance with professional, legal and ethical standards and rules related to work and conduct.

Teaching methodology

Lectures, written and oral communication, use of IT tools and techniques.

Materials supporting learning

- Bartus Gábor – Szalai Ákos: Környezet, jog, gazdaságtan, Pázmány Press, Budapest, 2014 (https://jak.ppke.hu/uploads/collection/205/file/Bartus-Szalai_Kornyezet_Jog_Gazdasagtan_2014_final.pdf)
- Valkó László - Kósi Kálmán: Környezetmenedzsment, Typotex Kiadó, 2008

- Gábor Bartus - Ákos Szalai: Environment, Law, Economics, Pázmány Press, Budapest, 2014 (https://jak.ppke.hu/uploads/collection/205/file/Bartus-Szalai_Kornyezet_Jog_Gazdasagtan_2014_final.pdf)

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

The assessment of the learning outcomes stated in point 2.2. is based on an online Moodle test.

Performance assessment methods

Checking of learning the lecture slides.

Percentage of performance assessments, conducted during the study period, within the rating

- **Moodle test**: 100

Percentage of exam elements within the rating

Conditions for obtaining a signature, validity of the signature

Active participation in class and/or online consultation with the lecturer. Completing the questionnaire on the course's Moodle page by the deadline.

Issuing grades

Excellent	100
Very good	100
Good	100
Satisfactory	100
Pass	100
Fail	0

Retake and late completion

The active participation in the contact lectures can be compensated during the semester by watching the recorded lectures afterwar

Coursework required for the completion of the subject

Lecture	13
Processing background materials	27
Learning individually	25
Preparing	25
Total	90

Approval and validity of subject requirements

Consulted with the Faculty Student Representative Committee, approved by the Vice Dean for Education, valid from: 05.05.2024.

III. COURSE CURRICULUM

THEMATIC UNITS AND FURTHER DETAILS

Topics covered during the term

Subject includes the topics detailed in the course syllabus to ensure learning outcomes listed under 2.2. can be achieved.

1 Environmental impacts, pressures, pollution, water, air, soil and noise

2 Waste management, circular economy, product charge, EPR charge

3 Biodiversity protection, biodiversity and ecosystem protection, operational offsets, carbon offset

Additional lecturers

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Approval and validity of subject requirements