SUBJECT DATASHEET

Environmental Economics

BMEGT42M100

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
Environmental Economics

ID (subject code)	BMEGT42M100

Type of subject
contact unit

Course types and lessons

Type	*Lessons*
Lecture	4
Practice	0
Laboratory	0

Type of assessment
exam grade

Number of credits
5

Subject Coordinator

Name	*Position*	*Contact details*
Dr. Bartus Gábor	senior lecturer	bartus.gabor@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; angol - ENG

Curricular role of the subject, recommended number of terms
Programme: **Master of Regional and Environmental Economic Studies**
Subject Role: **Compulsory**
Recommended semester: **1**

Programme: **Master of Science Program in Regional and Environmental Economic Studies**
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: 580439/11/2024 registration number. Valid from: 29.05.2024.

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

The course unit aims to augment and deepen the students' previously acquired knowledge in micro- and macroeconomics in a more complex manner, such that the objectives of environmental protection and the vision of sustainable development may be exercised as a skill. Having completed this course unit, students will be able to make more balanced, fair, equitable, and socially and environmentally desirable decisions, but also to assess and evaluate decisions taken by others.

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. knows the most significant normative theories of environmental policy intervention: the Pigou theorem and the Coase tradition;
5. 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;
6. knows the possibilities of government failures in the planning of environmental policy interventions;
7. knows the more frequently used environmental economic analysis methods: natural capital and ecosystem service evaluation procedures, cost-benefit analysis solutions.

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, problem discussions and case studies. Oral and written communication, use of IT, optional individual and group assignments and planning.

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
- Tietenberg, Tom – Lewis, Lynne: Environmental & Natural Resource Economics. 10th Edition. Pearson, 2014
- Phaneuf, D. J. – Requate, T.: A course in environmental economics. Theory, Policy and Practice. Cambridge University Press, 2017.
- Folyóiratcikkek és további, folyamatosan kiadott oktatástámogató anyagok
- A detailed and up-to-date list is provided during classes.

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

The learning objectives detailed in 2.2 will be assessed by means of 1. A summative assessment during the semester (1 mid-term test); 2. A
formative assessment (individual homework assignment) to establish the level of analytical, evaluational and planning skills.

Performance assessment methods

A. Description of performance evaluations during the study period: Summative assessment: a complex, written evaluation of the knowledge
and ability-type competence elements of the subject. The summative assessment focuses on the assessment of the acquired knowledge and
its application. The course material on which the evaluation is based and the method of evaluation are determined by the lecturer of the subject. B. Description of performance evaluations during the exam period: Evaluation of the knowledge, ability, ttitude and independence and responsibility-type competence elements of the subject in the form of an exam. The exam is a complex action, which focuses on the assessment of the acquired basic knowledge, as well as the discovery of the knowledge of the determining relationships. The exact framework of the exam is determined by the instructor.

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

- **1st summative assessment**: 50
- **2nd summative assessment**: 50
- **total**: 100

Percentage of exam elements within the rating

- **exam**: 100
- **total**: 100

Conditions for obtaining a signature, validity of the signature

The condition for obtaining the signature is the completion of the summative assessment. The signature is valid according to the provisions
of the TVSz.

Issuing grades

Excellent	95
Very good	87–94
Good	75–86
Satisfactory	62–74
Pass	50–61
Fail	0-49

Retake and late completion

1) Pursuant to the current CoS, each summative assessment can be retaken, repeated or completed late. 2) The summative assessments can be retaken, repeated or completed late for the first time during the late completion period free of charge. In the event of a retake, the new result always overwrites the old one. 3) If the student is unable to obtain a grade other than 'Fail' even with the retake, repeat and late completion possibilities according to point 1), they may make a second attempt to successfully complete the course after paying the fee specified in the regulations. 4) Retake, repeat and late completion of exams is possible according to paragraphs 121 and 123 of the CoS.

Coursework required for the completion of the subject

participation in contact classes	56
preparation for lectures	12
preparation for formative assessments	50
autonomous reading	22
exam preparation	10
total	150

Approval and validity of subject requirements

Consulted with the Faculty Student Representative Committee, approved by the Vice Dean for Education, valid from: 06.05.2024.

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. to be achieved. The schedule of topics in the course curriculum in each semester may be affected by the calendar and other constraints.

1 Introduction to environmental economics. The origins of enviromnental economics and evolutionary milestones.

2 Economic growth: understanding the conflict between the economy and the environment.

3 Development and environmental protection.

4 Confronting resource scarcity. Limits to growth, the road to sustainable development.

5 Forms of capital. Pollution chain.

6 Measuring macroeconomic performance: indicators and criticisms. The problem of measurement. Attempts to amend indicators. Accounting for sustainability. Development and welfare indicators.

7 Private goods, public goods, common goods. Externalities. Modelling externalities: obstacles and reality.

8 Pigou's theorem.

9 Coase's theorem.

10 The theory of environmental regulations, Pigovian approaches, Coasian approaches.

11 Environmental policy and regulatory tools in practice: Pigovian instruments, Coasian efforts.

12 Evaluation of effectiveness and efficiency of environmental regulatory tools.

Additional lecturers

Dr. Horváth György Ádám egyetemi adjunktus / senior lecturer horvath.gyorgy@gtk.bme.hu

Approval and validity of subject requirements