SUBJECT DATASHEET

Environmental Economics

BMEGT42A011

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
Environmental Economics

ID (subject code) BMEGT42A011

Type of subject
contact unit

Course types and lessons

Type	*Lessons*
Lecture	2
Practice	0
Laboratory	0

Type of assessment
exam grade

Number of credits
3

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

Curricular role of the subject, recommended number of terms
Programme: **Business administration and management Bachelor's Programme from 2021/22/Term 1**
Subject Role: **Compulsory**
Recommended semester: **4**

Programme: **Engineering Management Bachelor's Programme from 2015/16/Term 1**
Subject Role: **Compulsory**
Recommended semester: **4**

Programme: **Engineering Management Bachelor's Programme from 2017/18/Term 1**
Subject Role: **Compulsory**
Recommended semester: **4**

Programme: **Engineering Management Bachelor's Programme 2010**
Subject Role: **Compulsory**
Recommended semester: **5**

Programme: **International Management Bachelor's Programme from 2018/19/Term 1**
Subject Role: **Compulsory**
Recommended semester: **4**

Programme: **International Management Bachelor's Programme from 2020/21/Term 1**
Subject Role: **Compulsory**
Recommended semester: **4**

Programme: **Finance and Accounting Bachelor's Programme from 2019/20/Term 1**
Subject Role: **Compulsory**
Recommended semester: **4**

Programme: **International Management Bachelor's Programme from 2022/23/Term 1**
Subject Role: **Compulsory**
Recommended semester: **4**

Direct prerequisites

Strong	Közgazdaságtan I., Közgazdaságtan II.
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: 580005/7/2022. Valid from: 26.01.2022.

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 understands the importance of the economic approach in the transition to sustainable devel-opment.
2. The student is aware of the decision-making approach in economics.
3. The student has a basic knowledge of environmental valuations and its primary methods.
4. The student understands and has an insight into the microand macro-level conflicts arising from the interaction of the economy and our environment.
5. The student understands the concept of externalities, their causes and effects.
6. The student is familiar with the fundamental theories in environmental economics, the opportunities and limits to their practical applicability.
7. The student understands the theory of environmental regulatory tools and instruments, and is able to compose a mix of instruments for a particular purpose.

Skills

1. The student is sensitive towards and is capable of solidarity with future generations, and is capable of taking future-conscious, fair and equitable decisions.
2. The student is capable of drawing up economic, social and environmental plans for the future, and is competent at assessing these.
3. They are capable of assessing decisions taken from an economic, social and environmental aspect, bearing in mind the impacts on future generations.
4. They are capable of identifying and evaluating the micro and macro-level conflicts of the economy and the environment, and crafting socially and environmentally desirable solutions.
5. They are competent in recognising problems arising from pollution, and are capable of finding appro-priate solutions.
6. The student is capable of implementing environmental economic theory into practice.
7. They are capable of making a well-established choice between environmental regulatory tools, based on the limits of their applicability.

Attitude

1. The students collaborate/cooperate with the lecturer and fellow students on acquiring knowledge
2. The students expand their knowledge by continuous learning
3. The students are open to use IT solutions
4. The student strives to understand the nature and problems associated with environmental and natural resources in the interest of securing the commonwealth of society
5. The student exercises due empathy and interest towards other members of society, and shall act respectfully and cautiously in the shared interest of society.

Independence and responsibility

1. The students are able to work individually: selecting methods and techniques; organizing, planning, coordinating work; collecting, organizing, analysing, evaluating data; developing in general and professionally
2. The students are able to apply system-oriented thinking.
3. The students are able to take responsibility for the analyses, conclusions, decisions made.
4. The students are able to perform tasks individually and with responsibility as a member of a project team.
5. The student aims to overcome all and any shortcomings in any adjoining disciplines and knowledge areas, including natural sciences, philosophy or social and economic studies.

Teaching methodology

Lectures. 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 a written examination.

Performance assessment methods

A written examination must be taken during the exam period. Component parts of the examination: a. multiple choice test on the basics: terminology, interrelations b. practical application of theoretical concepts

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

- **written exam – multiple choice test**: 50-67
- **written exam – practical application**: 34-50%
- **total**: 100%

Percentage of exam elements within the rating

Conditions for obtaining a signature, validity of the signature

A signature will be awarded based on presence and active participation in lectures. Students' participation will be documented by signing a presence sheet. The obtained signature is valid as per the provisions of the Code of Studies and Examinations.

Issuing grades

Excellent	92
Very good	85–92
Good	70–85
Satisfactory	55–70
Pass	40–55
Fail	40

Retake and late completion

1) As the condition for obtaining a signature is active participation in class, no makeup is possible. 2) Any examination taken may be retaken as per the provisions of the Code of Studies and Examinations.

Coursework required for the completion of the subject

participation in contact classes	14×2=28
preparation for the subsequent class	13x2=26
exam preparation	36
total	90

Approval and validity of subject requirements

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 The relationship between society and its environment. The allocations and processes scrutinised by environmental economics.

2 The macroeconomic endogenous causes of pollution: (1) growth, (2) making choices due to scarcity, (3) the problem of measurement.

3 The microeconomic endogenous causes of pollution: (4) externalities, (5) common goods and free goods, (6) discounting

4 Pollution as a market failure: Pigovian and Coasian approaches to pollution control

5 General overview of environmental regulatory tools – Coasian approaches

6 Pigovian tools of environmental regulations: direct regulations and indirect regulations/economic incentives

7 Comparing direct and indirect/economic means of environmental regulations – aspects of choosing the appropriate regulatory tool.

8 Optimal use of natural resources: cost-benefit analyses in environmental economics, evaluation of non-market costs and benefits. The valuation of natural capital.

9 The economics of natural resource use. Renewable and non-renewable resources.

Additional lecturers

Dr. Kósi Kálmán	c. egyetemi tanár – hon. professor	kosi.kalman@gtk.bme.hu
Dr. Princz-Jakovics Tibor	egyetemi adjunktus – senior lecturer	princz-jakovics.tibor@gtk.bme.hu
Dr. Horváth György Ádám	egyetemi adjunktus – senior lecturer	horvath.gyorgy@gtk.bme.hu

Approval and validity of subject requirements