



# **SUBJECT DATASHEET**

## **Sectorial Sustainability Studies**

### **BMEGT42M111**

# I. SUBJECT DESCRIPTION

## 1. SUBJECT DATA

### Subject name

Sectorial Sustainability Studies

### ID (subject code)

BMEGT42M111

### Type of subject

contact unit

### Course types and lessons

<i>Type</i>	<i>Lessons</i>
Lecture	4
Practice	0
Laboratory	0

### Type of assessment

mid-term  
grade

### Number of credits

5

### Subject Coordinator

<i>Name</i>	<i>Position</i>	<i>Contact details</i>
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Dr. Princz-Jakovics Tibor	senior lecturer	princz-jakovics.tibor@gtk.bme.hu
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### 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: **4**

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Programme: **Master of Science Program in Regional and Environmental Economic Studies**

Subject Role: **Compulsory**

Recommended semester: **4**

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### 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: 580884/8/2023 registration number. Valid from: 29.11.2023.

## 2. OBJECTIVES AND LEARNING OUTCOMES

### Objectives

The aim of the course is to provide knowledge to students about the possibilities of integrating sustainability aspects in some economic sectors. The aim is to acquaint students with the methods of sustainability analysis of current policies and the results of the analyses. During the course, the environmental evaluation methods and their sectoral applications are presented in an overview.

### Academic results

#### Knowledge

1. Knows the theoretical background of environmental evaluation, including the concept of total economic value,
2. is familiar with CSR corporate practices,
3. is familiar with the sectoral characteristics determining the domestic and EU transport policy and the main strategic ideas and vehicle technology directions for the future development of transport;
4. is familiar with the key indicators of the formation and development of cities and the main strategic directions for the future development of the urban environment,
5. is aware of the environmental, economic and social problems of rural areas and the main strategic ideas of sustainable rural development,
6. is familiar with the principles and practical possibilities of sustainable waste management,
7. knows the characteristics of the circular economy,
8. is familiar with the sectoral characteristics determining domestic and EU energy policy and the main strategic ideas for the future development of energy management,
9. knows the market characteristics of the alternative energy source, the advantages and disadvantages of their use.

#### Skills

1. The student is able:
2. to prepare environmental evaluation case studies,
3. to analyse the sustainability of transport policy and strategy documents,
4. to outline the possibilities of urban development and to analyse the sustainability of the documents determining the future development of cities,
5. to identify rural development problems and analyse the sustainability of related strategic documents,
6. to represent the basic processes of waste management, as well as to determine the factors influencing the efficiency of waste management methods, to identify the characteristics of the circular economy,
7. to analyse the sustainability of documents defining energy policy and strategy, including the possibilities of using alternative energy sources,
8. to communicate and present orally and in writing in a professionally adequate manner,
9. to process and use domestic and international literature.

#### Attitude

1. Open to learn about the possibilities of applying environmental evaluation methods, to take them into account in decision-making,
2. open to the practical application of sustainability principles,
3. endeavors to make its decisions taking into account technical, economic and social aspects;
4. endeavors to examine the various sectoral policies and strategic ideas in a comprehensive systems approach;
5. cooperates with the lecturers and fellow students in expanding the knowledge and thinking together in solving the problems raised.

#### Independence and responsibility

1. Prepares the project work independently during the semester,
2. independently selects and applies the relevant problem-solving and analytical methods in solving the analytical tasks belonging to his / her field.
3. Feels responsible for achieving sustainable development.
4. Feels responsible for taking greater account of environmental and social aspects in sectoral decision-making in addition to technical aspects.

### Teaching methodology

In the framework of the lectures, the sectoral processes, characteristics, environmental evaluation and sustainability analysis methods will be shown in the form of presentations. In addition, students independently prepare their project work, in which they examines a chosen sector or environmental evaluation method based on given content elements.

### Materials supporting learning

- Dr. Szilávik János (szerk.): Környezetgazdaságtan. 3. fejezet. (Csigéné Nagypál Noémi) Budapesti Műszaki és Gazdaságtudományi Egyetem. Typotex Kiadó, Budapest, 2007.
- Marjainé Dr. Szerényi Zsuzsanna (szerk.): A természetvédelemben alkalmazható közgazdasági értékelési módszerek. Környezetvédelmi és Vízügyi Minisztérium, Budapest, 2005.
- Princz-Jakovics Tibor: A fenntarthatóság erősítése a vidéki közlekedési rendszerek fejlesztésében. Doktori értekezés, BME, Budapest, 2008
- Illés Iván: Regionális gazdaságtan - területfejlesztés: 6. fejezet, Vidékfejlesztés (pp. 119-137), Typotex Kiadó, Budapest, 2008

- Kengyel Ákos (szerk.): Az Európai Unió közös politikái: 7. fejezet, Közös Agrárpolitika, írta: Halmai Péter (pp. 247-269), Akadémiai Kiadó, Budapest, 2010
- American Journal of Agricultural Economics
- Ecological Economics
- Journal of Agricultural Resource Economics
- Journal of Economic Perspectives
- Journal of Environmental Economics and Management
- Journal of Environmental Planning and Management

# II. SUBJECT REQUIREMENTS

## TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

### General Rules

The assessment of the learning outcomes formulated in point 2.2. is based on 2 kinds of mid-term written performance measurements: two summative performance assessments and a formative performance assessment (homework).

### Performance assessment methods

A. Detailed description of performance evaluations during the study period: 1. summative performance assessment: a complex, written way of evaluating the competence-type competence elements of the subject and knowledge in the form of two mid-term exams. The successful writing of the exam requires the correct interpretation of the concepts with the help of the acquired knowledge, as well as the knowledge

of the application areas of sustainability analysis methods (including environmental evaluation). The part of the learning materials on which the evaluation is based refers to the topics covered in the previous lectures, the available working time is 60 minutes. 2. formative performance assessment: a complex way of assessing the competence elements of the subject knowledge, ability, attitude, as well as the type of independence and responsibility, the manifestation of which is the preparation and presentation of an individual homework or presentation. Content and requirements of the homework or presentation: Sustainability analysis of a selected area from the thematic areas presented in the course: - Presentation of EU and national policies - presentation and comparison of important policy documents - Characterization of the direction indicated by the indicators selected from the currently published CSO publication entitled "Indicators of Sustainable Development in Hungary" - characterization of the target system, sustainability assessment - formulating own proposals for the achievement of higher level of sustainability

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

- 1st summative assessment: 35
- 2nd summative assessment: 35
- formative assessment: 30
- Total: 100

### Percentage of exam elements within the rating

### Conditions for obtaining a signature, validity of the signature

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### Issuing grades

Excellent	91
Very good	85–90
Good	76–84
Satisfactory	63–75
Pass	50–62
Fail	0-49

### Retake and late completion

1) The summative assessments can be retaken, repeated or completed late individually free of charge during the late completion period. In the event of a retake, the new result always overwrites the old one. 2) 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. 3) The homework can be sent as a late completion in electronic form until 16 pm on the last day of the late completion period. 4) Pursuant to the current CoS, in the case of partial performance evaluations, if the assignment was submitted on time, it is possible to repeat or retake it before the end of the late completion period, if the original task has already been accepted by the instructor. 5) Partial performance evaluations can be submitted late, subject to payment of the special procedure fee specified in the regulations. The latest date for late submission is the last day of the late completion period.

### Coursework required for the completion of the subject

participation in contact lessons	56
homework preparation	74
preparation for assessments	20
total	150

### Approval and validity of subject requirements

Consulted with the Faculty Student Representative Committee, approved by the Vice Dean for Education, valid from: 06.11.2023.

# III. COURSE CURRICULUM

## THEMATIC UNITS AND FURTHER DETAILS

### Topics covered during the term

In order to achieve the learning outcomes set out in point 2.2, the subject consists of the following thematic blocks. In the syllabi of the courses announced in each semester, these topics are scheduled according to the calendar and other features.

- 1 The course's purpose, theme, and system of requirements. Sectoral policies of sustainability
- 2 Sectoral examples of environmental assessment
- 3 Sustainability interpretation possibilities, concepts, practical problems
- 4 Domestic and international examples of sustainability strategies
- 5 Alternative vehicle technologies
- 6 Sustainable rural development
- 7 Sustainable consumption, eco-labels
- 8 Characteristics of a circular economy
- 9 Smart cities
- 10 Sustainability analysis of current domestic and EU transport policy
- 11 Analysis of domestic energy policy from a sustainability perspective

### Additional lecturers

- Dr. Princz-Jakovics Tibor egyetemi adjunktus / senior lecturer princz-jakovics.tibor@gtk.bme.hu  
Dr. Bartus Gábor egyetemi adjunktus / senior lecturer bartus.gabor@gtk.bme.hu  
Dr. Szabó Mariann egyetemi adjunktus / senior lecturer szabo.mariann@gtk.bme.hu  
Dr. Ijjas Flóra egyetemi adjunktus / senior lecturer ijjas.flora@gtk.bme.hu

### Approval and validity of subject requirements