SUBJECT DATASHEET

SECTORIAL SUSTAINABILITY ANALYSIS

BMEGT42M111

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
SECTORIAL SUSTAINABILITY ANALYSIS

ID (subject code)	BMEGT42M111

Type of subject
contact unit

Course types and lessons

Type	*Lessons*
Lecture	2
Practice	2
Laboratory	0

Type of assessment
mid-term grade

Number of credits
5

Subject Coordinator

Name	*Position*	*Contact details*
Dr. Princz-Jakovics Tibor	senior lecturer	princz-jakovics.tibor@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: **Regional and Environmental Economic Studies MSc (in English) from 2019/20/Term 1**
Subject Role: **Compulsory**
Recommended semester: **4**

Programme: **Regional and Environmental Economics from 2016/17/Term 1, SPRING start**
Subject Role: **Compulsory**
Recommended semester: **3**

Direct prerequisites

Strong	None
Weak	None
Parallel	None
Exclusion	None

Validity of the Subject Description

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. At the beginning of 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. Szlávik 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: a summative performance assessment and homework.

Performance assessment methods

A. Detailed description of performance evaluations during the academic 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 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 material. 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 performance assessment**: 30
- **2nd summative performance assessment**: 30
- **formative performance assessment**: 40
- **Sum**: 100

Percentage of exam elements within the rating

Conditions for obtaining a signature, validity of the signature

-

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 performance assessments can be retaken or corrected individually free of charge during the repeat period. In case of correction, the more favourable result for the student is taken into account. 2) The homework - in addition to the payment of the fee specified in the regulations - can be sent delayed in electronic form until 12 noon on the last day of the repeat period.

Coursework required for the completion of the subject

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

Approval and validity of subject requirements

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 sustainabilitySectoral examples of environmental assessmentSustainability interpretation possibilities, concepts, practical problemsDomestic and international examples of sustainability strategiesAlternative vehicle technologiesSustainable rural developmentSustainable consumption, eco-labelsCharacteristics of a circular economySmart citiesSustainability analysis of current domestic and EU transport policyAnalysis 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