SUBJECT DATASHEET

Environmental education and sustainability

BMEGT42A700

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
Environmental education and sustainability

ID (subject code)	BMEGT42A700

Type of subject
Contact lessons

Course types and lessons

Type	*Lessons*
Lecture	0
Practice	1
Laboratory	0

Type of assessment
mid-term grade

Number of credits
4

Subject Coordinator

Name	*Position*	*Contact details*
Dr. Zilahy Gyula	full professor	zilahy.gyula@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: **Vocational instructor BSc - Technical instructor specialisation (from 2021/22/Term 1)**
Subject Role: **Compulsory**
Recommended semester: **3**

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: 580768/11/2022. Valid from: 26.10.2022.

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

To familiarise students with the importance of sustainability education and the concept of sustainability. To provide a deeper understanding of current environmental challenges through different sectors. To shape students' attitudes and improve their systematic thinking. To introduce students to pedagogical methods essential for education related to sustainable development. Identifying sustainability skills and competences.

Academic results

Knowledge

1. The student knows the key concepts of sustainability.
2. The student knows the key pedagogical methodologies of education for sustainable development.
3. The student knows the key competences for sustainability.
4. The student knows that sustainability problems need to be addressed by combining different disciplines to initiate systemic change.
5. The student is familiar with national and international good practices of education for sustainable deve-lopment.

Skills

1. The student is able to articulate the values, principles and goals of sustainability.
2. The student is able to demonstrate sustainability as a holistic concept.
3. The student is able to develop a systemic approach across different sectors and disciplines.
4. The student is able to discover cause-and-effect relationships through specific environmental problems.
5. The student is able to design and deliver a project methodology on sustainability.
6. The student is able to develop educational material that encourages appropriate action on a sustainability related issue.
7. The student is able to present sustainability related solutions and ideas in a convincing way.

Attitude

1. The student collaborates with the lecturer and fellow students on acquiring knowledge.
2. The student broadens their knowledge through continuous learning.
3. The student is open to the use of IT tools and solutions.
4. The student is open to the use of different innovative pedagogical methods.
5. The student strives to understand complex systems.

Independence and responsibility

1. The student is able to independently plan the practical implementation of educational methodologies related to sustainable development.
2. The student is open for well-founded critical comments.
3. The student collaborates with fellow students as part of a team to solve problems.
4. The student is able to apply systematic thinking.

Teaching methodology

Presenting theoretical background through lectures and problem statements, communicate in writing and orally. Presenting and putting into practice practical methodologies of education for sustainable development.

Materials supporting learning

- Zöld Föld tankönyv. Kék Bolygó Alapítvány, Alapértékek Nonprofit Kft.Oktatási Hiva-tal, 2021.
- Fenntartható fejlődési célok oktatása. UNESCO, OFI, Eszterházy Károly Egyetem, 2017.
- Barna Orsolya, Soós Viktória: Kreatívan a klímaváltozásról, 2021.
- GreenComp: the European sustainability competence framework, JRC. 2022.
- Marjainé Dr. Szerényi Zsuzsanna (szerk.): A természetvédelemben alkalmazható köz-gazdasági értékelési módszerek. Környezetvédelmi és Vízügyi Minisztérium, Budapest, 2005

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

Assessment of the learning outcomes described under 2.2. is based on one written test and one group assignment. The main requirements
of gaining signature are the followings: 1) achieve at least 50% of the mid-term test and 2) in the group assignment.

Performance assessment methods

Summative performance evaluation (one mid-term test) must be completed. This will assess the basic knowledge of students, and serves as a check of the understanding of basic concepts, terms and relationships. 2. Partial performace evaluation (The group assignments) must be completed during the semester to evaluate the students ability to work to-gether in solving complex sustainability problems through appropriate education for sustainable develop-ment methodologies.

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

- **Summative performance evaluation**: 50
- **Partial performance evaluation**: 50
- **Sum**: 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	87-90
Good	75-86
Satisfactory	62-74
Pass	50-61
Fail	0-49

Retake and late completion

1. Both the mid-term test and the group assignment presentation may be retaken. 2. The first retake can be taken for free as per the relevant laws on performance assessment and examina-tion. 3. A second retake opportunity will be provided upon payment of a

Coursework required for the completion of the subject

részvétel a kontakt tanórákon	8
félévközi készülés órákra	32
felkészülés a teljesítményértékelésre	50
gyakorlati feladat elkészítése	30
Sum	120

Approval and validity of subject requirements

Consulted with the Faculty Student Representative Committee, approved by the Vice Dean for Education, valid from: 10.10.2022.

III. COURSE CURRICULUM

THEMATIC UNITS AND FURTHER DETAILS

Topics covered during the term

In order to achieve the learning outcomes described in 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 conditions.

1 1. Introduction. Understanding sustainability. The sustainable development goals. Getting to know today's environmental challenges and incorporating them into a system. Main elements of sustainability education, good examples, project methodology. System approach, interpretation of system innovation, pedagogical exercises to illustrate systems.

2 2. Learning about environmental assessment systems. Interpretation of the deeper connections of specific problems of different sectors. Getting to know sustainability competencies and their associated knowledge, skills and behavior in multiple approaches. Getting to know challenge-based sustainability education and trying it out in practice. Interpretation of complex sustainability problems from several aspects.

3 3. The role of innovation in sustainability efforts. Interpretation, history, typification of innovation. The complexity of sustainability. In the case of complex sustainability problems, identifying the stakeholders and planning cooperation. Creating a sustainability action plan.

4 4. Creating a sustainable future vision, outlining alternative future visions. Presentation of sustainability solutions.

Additional lecturers

Barna Orsolya	PhD hallgató / PhD student	barna.orsolya@gtk.bme.hu
Bozsoki Fruzsina	PhD hallgató / PhD student	fruzsina.bozsoki@edu.bme.hu

Approval and validity of subject requirements