



SUBJECT DATASHEET

Economics of Sustainable Development

BMEGT42A101

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name

Economics of Sustainable Development

ID (subject code)

BMEGT42A101

Type of subject

contact unit

Course types and lessons

<i>Type</i>	<i>Lessons</i>
Lecture	2
Practice	0
Laboratory	0

Type of assessment

mid-term
grade

Number of credits

3

Subject Coordinator

<i>Name</i>	<i>Position</i>	<i>Contact details</i>
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Dr. Bartus Gábor	senior lecturer	bartus.gabor@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

Curricular role of the subject, recommended number of terms

Programme: **BSc in Engineering Management**

Subject Role: **Compulsory**

Recommended semester: **4**

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: 580672/5/2023 registration number. Valid from: 25.10.2023.

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

The aim of the course is to acquaint students with the theory and practice of sustainable development, especially in the international and national policies. During the course, we will also provide an overview of the possibilities of corporate management practices for sustainability.

Academic results

Knowledge

1. The student has theoretical knowledge of the parts of macroeconomics concerning the factors of production and knowledge of their practical applicability.
2. The student knows the different interpretive concepts and theories of sustainable development.
3. The student knows the macro-level horizontal instruments of sustainable development policies, SD strategies and programs.
4. The student knows the relevant indicators, typical methods of evaluation.
5. The student knows the main features of the practice of the sustainable development management.

Skills

1. The student is able to use the learned theories and methods, he/she explores, systematizes and analyzes facts and basic connections, formulates independent conclusions and critical remarks, makes decision-making proposals, and makes decisions in routine and partly unknown - domestic and international - environments.
2. The student interprets the possible consequences of the decisions in his/her engineering or managerial profession and activity, and is able to follow and evaluate the changes and their effects of global trends of world economy and national policies.
3. The student is able to calculate and analyze the complex consequences of economic and institutional processes.
4. The student can apply relevant problem solving techniques and methods, problem solving methods, taken into account their application conditions and limitations.
5. The student is able to collaborate with others with different disciplines.

Attitude

1. In order to perform quality work, the student is problem-sensitive and proactive.
2. Receptive to new information, new professional knowledge and methodologies, open to new, independent and collaborative tasks and responsibilities. The student strives to improve his knowledge and working relationships.
3. The student is open to challenges in the broader economic and social environment of the given job, work organization, enterprise, strives to follow and understand the changes.
4. The student has inclusive views on sectoral, regional, national and European values (including social, societal and ecological, sustainability aspects).

Independence and responsibility

1. The student is responsible for his/her analyzes, conclusions and decisions.
2. The student is responsible for complying with professional, legal, ethical standards and rules related to his/her work and conduct.

Teaching methodology

Lectures, written and oral communication, use of IT tools and techniques.

Materials supporting learning

- A kurzus alapvető tananyaga egy több cikkből és tanulmányból álló válogatás, amit az új eredmények megjelenésével folyamatosan frissítünk. Az anyagok elektronikusan minden hallgató számára elérhetők, letölthetők.
- The core curriculum of the course is a selection of several articles and research papers, which are constantly updated as new results appear. The materials are available and downloadable for all students.
- G. Bartus: Unsustainability as an economic problem. In: Marcel Szabó and Marie-Claire Cordonie Segger (ed.) Inter-generational Justice in Sustainable Development Treaty Implementation, Cambridge University Press, 2019.
- Bartus G.: Miért nem képesek a társadalmak megfékezni a természeti környezet pusztulását? – Az érdemi és hatékony környezetpolitika körvonalai. In: Hegyemenet – Társadalmi és politikai kihívások Magyarországon (Szerk: Jakab András és Urbán László) Budapest: Osiris, 2017. 442-460.
- Bartus G.: A fenntarthatósági politika értelméről. In: „Jó és jól!” 26 tanulmány a fenntarthatóságról (Szerk: Bodor M., Ke-rekes S. és Zilahy Gy.) Kőszeg: iASK Felsőfokú Tanulmányok Intézete, 2017. 20-27.
- Bartus, G.: A fenntartható fejlődés fogalom értelmezésének hatása az indikátorok kiválasztására, Statisztikai Szemle, 91 (8-9), 842-869. (2013)
- Bartus, G.: A fenntartható fejlődés értelmezési problémái, Minőség és Megbízhatóság, XLVI (6), 309-316. (2012)
- Bartus, G.: Távol a fenntartható társadalomtól, Studia Wesprimiensia, 19 (1-2), 10-17. (2018)
- Bartus G.: Fenntarthatóság és társadalmi igazságosság, Periodica Oeconomica, 3. (2), 37-47. (2010)
- Bartus G.: Alkotmányozás és a környezet védelme. Kommentár, 5. évf. 6. szám, 24-33. (2010)
- Bartus G.: Szükségünk van-e jóléti vállalatokra? Kommentár 3. évf. 5. szám, 26-40. (2008)
- Bartus G.: A fenntartható fejlődés rejtélyes fogalmáról. Kommentár 1. évf. 6. szám, 55-63. (2006)
- United Nations: Transforming our world: the 2030 Agenda for Sustainable Development. General Assembly Resolution A/RES/70/1. (2015) 18/2013. (III. 28.) OGY határozat a Nemzeti Fenntartható Fejlődés Keretstratégiáról

- L. Meuleman (ed.): Transgovernance – Advancing Sustainability Governance. Springer, Heidelberg-New York, Dordrecht-London, 2013.
- J.D. Sachs: The Age of Sustainable Development. Columbia University Press, New York, 2015.
- D. Acemoglu – J.A. Robinson: Miért buknak el a nemzetek? (ford: Garamvölgyi A.) HVG Könyvek, Budapest, 2013.
- J. Diamond: Összeomlás – Tanulságok a társadalmak továbbéléséhez. Typotex, Budapest, 2007.
- A Nemzeti Fenntartható Fejlődési Tanács Műhelytanulmányok sorozatának számai, letölthetők innen:
<https://www.nfft.hu/muhelytanulmanyok>

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

The learning outcomes stated in point 2.2. are evaluated based on performance shown in the written summative assessments.

Performance assessment methods

Summative assessments during the study period: two written mid-term exams. The mid-term exams are multiple-choice tests: they measure the accuracy of the use of concepts, the correct knowledge of the basic theorems and connections, and the ability to apply the basic theorems.

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

- 1st summative assessment (1st mid-term exam): 50
- 2nd summative assessment (2nd mid-term exam): 50
- 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	92
Very good	85-91
Good	70-84
Satisfactory	55-69
Pass	40-54
Fail	0-39

Retake and late completion

1) Pursuant to the current CoS, the two summative assessments 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 correction, 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.

Coursework required for the completion of the subject

contactlessons	28
preparation for contact lessons	22
preparation for mid-term exams	40
total	90

Approval and validity of subject requirements

Consulted with the Faculty Student Representative Committee, approved by the Vice Dean for Education, valid from: 09.10.2023.

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 conditions.

- 1 Introduction: the problem of sustainability. Why did "sustainable development" become fashionable?
- 2 The concept of sustainable development, different interpretations of the concept. The effect of interpreters' prior normative commitments on interpretation.
- 3 Physical (economic) resources - theory, role in development, global and domestic situation, trends.
- 4 Human resources - theory, role in development, global and domestic situation, trends.
- 5 Natural capital and ecosystem services - theory, role in development, global and domestic situation, trends.
- 6 Social capital - theory, role in development, global and domestic situation, trends.
- 7 International agreements and programs of sustainable development. Sustainability policies of the European Union.
- 8 National sustainable development strategies. Urban sustainability programs.
- 9 Is the company sustainable?
- 10 Tools of sustainability policy: indicators, progress reports.
- 11 The connection of sustainability policy to economic policy. Transformation of the economic regulation system. Sustainable financing.

Additional lecturers

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Approval and validity of subject requirements