SUBJECT DATASHEET

Social challenges of climate change

BMEGT42BX4T000-00

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
Social challenges of climate change

ID (subject code)	BMEGT42BX4T000-00

Type of subject
contact unit

Course types and lessons

Type	*Lessons*
Lecture	2
Practice	0
Laboratory	0

Type of assessment
mid-term grade

Number of credits
3

Subject Coordinator

Name	*Position*	*Contact details*
Dr. Buzási Attila	associate professor	buzasi.attila@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

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: 580501/3/2025 registration number. Valid from: 2025.07.10.

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

The main objective of the course is to clarify and expand knowledge of environmental, social and economic issues related to climate change, including the scientific basis of climate change, international policies, impacts and consequences.

Academic results

Knowledge

1. The student knows the main concepts of climate change mitigation and adaptation;
2. knows the main interlinkages between climate protection and sectoral policy's dimensions;
3. knows the sources of GHG emissions and their impacts on environment and society;
4. knows the main principles of national, EU and international climate policies;
5. knows the elements of Earth's climate system and the interconnections between them.

Skills

1. The student is able to form a personal opinion in climate protection issues;
2. is able to evaluate main challenges regarding climate change;
3. is able to reveal and understand local solutions and answers to climate change;
4. is able to evaluate the socio-economic impacts of climate change.

Attitude

1. The student cooperates with the lecturer and fellow students;
2. strives to understand complex systems;
3. stives to make their decisions taking into account technical, economic and social aspects.

Independence and responsibility

1. The student independently selects and applies the relevant problem-solving and analytical methods when solving the analytical tasks belonging to their field;
2. feels responsible for achieving climate protection;
3. feels responsible for taking greater account of climate-related and social aspects.

Teaching methodology

Lectures

Materials supporting learning

- Előadásdiák
- K-faktor: Klíma, gazdaság, társadalom https://repozitorium.omikk.bme.hu/handle/10890/13144

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

The assessment of the learning outcomes stated in point 2.2. is based on three summative assessments (mid-term exams).

Performance assessment methods

Detailed description of performance evaluations during the study period: Summative assessment: a complex, written evaluation method of the subject's knowledge and ability-type competency elements in the form of a mid-term exam. The mid-term exam focuses on the application
of the acquired knowledge, thus focusing on problem recognition and solution. The course material on which the evaluation is based is determined by the lecturer of the subject.

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

- **1st summative assessment**: 30
- **2nd summative assessment**: 30
- **3rd summative assessment**: 40
- **Total**: 100

Percentage of exam elements within the rating

Conditions for obtaining a signature, validity of the signature

-

Issuing grades

Excellent	90
Very good	85-89
Good	75-84
Satisfactory	60-74
Pass	50-59
Fail	0-49

Retake and late completion

1) Pursuant to the current CoS, each summative assessment 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 retake, 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

Participation	24
Preparing for the mid-terms	30
Independent studying	36
Total	90

Approval and validity of subject requirements

Consulted with the Faculty Student Representative Committee, approved by the Vice Dean for Education, valid from: 07.07.2024.

III. COURSE CURRICULUM

THEMATIC UNITS AND FURTHER DETAILS

Topics covered during the term

In order to achieve the learning outcomes set out at 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 The scientific background of the root causes and effects of the greenhouse effect and climate change, the forms and expected trends of climate change.

2 The connection of climate change to some global and regional sustainability challenges, the international dimensions of climate protection.

3 Sectoral and socio-economic activities that cause the emission of greenhouse gases in a "life cycle approach".

4 Calculation methods of greenhouse gas emissions, practice of carbon footprint calculation, international comparison.

5 Strategic approach to climate protection, foundations of EU and domestic climate policies, climate strategies, connection to energy, transport and agricultural policies.

6 The development of climate vulnerability, strategies for prevention and planned (resilient) preparation at the level of local governments.

7 Sectoral dimensions of adaptation to climate change include water management, critical infrastructure, agriculture, tourism, nature conservation.

8 Low-carbon economy. EU emission trading scheme.

Additional lecturers

- -

Approval and validity of subject requirements