

# SUBJECT DATASHEET

Social challenges of climate change

BMEGT42BX4T000-00

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# 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 of                            |
|---------------------------|---------|------------------------------------|
| Type                      | Lessons | assessment                         |
| Lecture                   | 2       | mid-term<br>grade                  |
| Practice                  | 0       | C                                  |
| Laboratory                | 0       | <u>Number of</u><br><u>credits</u> |
| Carleia at Carandia at an |         | 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.

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# 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.

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# 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**

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Approval and validity of subject requirements

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