SUBJECT DATASHEET

CLIMATE CHANGE – ADVANCED LEVEL

BMEGT42V102

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
CLIMATE CHANGE – ADVANCED LEVEL

ID (subject code)	BMEGT42V102

Type of subject
Contact lessons

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; angol - ENG

Curricular role of the subject, recommended number of terms
Programme: **Elective subjects**
Subject Role: **Elective**
Recommended semester: **0**

Programme: **Regional and Environmental Economic Studies MSc (in English) from 2019/20/Term 1**
Subject Role: **Elective**
Recommended semester: **1**

Direct prerequisites

Strong	None
Weak	None
Parallel	None
Exclusion	None

Validity of the Subject Description

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

The main aim of the course is to provide knowledge about environmental, social and economic issues regarding cli-mate change through the basics of physical evidences, international policies, impacts and consequences.

Academic results

Knowledge

1. elements of Earth's climate system and interconnections between them;
2. global and local challenges regarding climate change, associated solutions and innovative opportunities;
3. tools of climate policy;
4. adaptation challenges and options of vulnerable systems.

Skills

1. evaluate main challenges regarding climate change;
2. understand the main connections between Eath's climate system;
3. identify feasible opitons of climate policy to tackle climate-related challenges;
4. define specific local impacts of global climatic processes;
5. reveal and understand local solutions and answers to climate change;
6. explain all the above in an easily understandable way.

Attitude

1. collaborate with their instructors and fellow students during the learning process,
2. gain knowledge and information,
3. use the opportunities offered by IT tools.

Independence and responsibility

1. define answers to climte-related problems independently;
2. are open to accept critical remarks;
3. cooperate with other students.

Teaching methodology

Lectures and written communication, use of ICT tools and techniques.

Materials supporting learning

- Az előadások prezentációinak anyaga, ami a félév során folyamatosan fog feltöltésre kerülni.
- Slideshows of the lectures which will be uploaded continously during the semester.:
- Az aktuális irodalmi lista az első órán kerül ismertetésre.
- The actual literature list will be distributed in the first lesson.

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

The course has midterm examination, and for the assessment of knowledge, two midterms (30 points each) are written which contain topics
with the same difficulty

Performance assessment methods

Each midterm consists of two parts. The first part is about the concepts and basic knowledge of the given topic. Typically, this may consist of multiple choice tests (25 pts). The second part of the midterm aims to assess mo-re complex understanding of the topic through
a short essay (5 pts). 60 minutes are available for writing a mid-term. The minimum requirement for both mid-terms is to achieve 15-15 pts. The condition of course comp-letion is to achieve at least 30 scores of the total sum. During the academic semester it is possible to receive ext-ra scores which will be automatically counted in case of reaching the minimum requirement of 30 scores. Stu-dents of Regional and Environmental Economic Studies need to 1) make a short presentation or 2) write a 15-page essay by the end of the sem

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

- **1. partial performance evaluation (active parti-cipation)**: 50%
- **2. partial performance evaluation (active parti-cipation)**: 50%
- **total**: 100%

Percentage of exam elements within the rating

Conditions for obtaining a signature, validity of the signature

Issuing grades

Excellent	85-100
Very good	85-100
Good	70-84
Satisfactory	60–69
Pass	50–59
Fail	0-49

Retake and late completion

1) The date of retaking or making up midterms is: Week 14. 2) Each midterm exam can be retaken or made up at the end of the semester. 3)
Always the last achieved result is counted, even in case of grade deterioration. 4) The rewrite opportunity is considered only for students who have achieved at least a „Pass [E]”grade based on the result of the original midterms. 5) Please take into consideration that there is no other option to obtain the grade except for the midterms and their retake occasions at specified time.

Coursework required for the completion of the subject

Participation in contact lessons	12×2=24
Preparing for the midterms	25x2=50
Self-study of designated written material	16
total	90

Approval and validity of subject requirements

III. COURSE CURRICULUM

THEMATIC UNITS AND FURTHER DETAILS

Topics covered during the term

Subject includes the topics detailed in the course syllabus to ensure learning outcomes listed under 2.2. can be achie-ved. Timing of the topics may be affected by calendar or other circumstances in each semester.

1 Introduction; elements of the Earth's climate system. Scientific background of the Earth's climate system.
2 Climate change in the past.
3 Climate modelling, climate scenarios.
4 Impacts and consequences of climate change in Hungary and the world.
5 Climate policy and climate negotiations.
6 Economics of climate change – emission trading scheme and other innovative economic solutions.
7 Impacts, solutions and adaptation opportunities – water management.
8 Impacts, solutions and adaptation opportunities – energy management.
9 Impacts, solutions and adaptation opportunities – transport sector.
10 Impacts, solutions and adaptation opportunities – urban areas.

Additional lecturers

Dr. Buzási Attila	adjunktus/senior lecturer	buzasi@eik.bme.hu
Szalmáné Dr. Csete Mária	egyetemi docens/associate professor	csete@eik.bme.hu

Approval and validity of subject requirements