How do we talk about climate change? IPCC report case study

Educational subject description sheet

Basic information

Study programme Geohazards and Climate Change **Speciality** - **Organizational unit** Faculty of Geographical and Geological Sciences **Study level** Second-cycle programme **Study form** Full-time **Education profile** General academic	**Didactic cycle** 2023/24 **Subject code** 07GCCS.28P.02891.23 **Lecture languages** English **Course type** Elective **Block** Basic subjects

Subject coordinator	Karolina Leszczyńska
Lecturer	Karolina Leszczyńska

Period	**Activities and hours**	**Number of ECTS points**
Semester 4	• Lecture: 15, Graded credit	2

Goals

Code	Goal
C1	The aim of the course is to present the most up to date knowledge on the climate change (natural and anthropogenic) and its consequences to human civilization and contemporary changes of socio-economic conditions in various parts of the world.
C2	After the course student will be equipped with tools for critical assessment of the sources of information on warming Earth.

Subject learning outcomes

Code	Outcomes in terms of	Learning outcomes	Examination methods
Knowledge – Student:			
W1	knows natural and anthropogenic drivers of the climate change;	GCC_K2_W02, GCC_K2_W07, GCC_K2_W08, GCC_K2_W09, GCC_K2_W16, GCC_K2_W17, GCC_K2_W18	Multimedia presentation
W2	knows most up to date examples of study on the past and ongoing climate change.	GCC_K2_W15, GCC_K2_W16, GCC_K2_W17, GCC_K2_W18	Multimedia presentation
Skills – Student:			
U1	differentiates between natural and anthropogenic causes of the climate change;	GCC_K2_U01, GCC_K2_U03, GCC_K2_U17	Multimedia presentation
U2	critically assesses the possible future scenarios of the climate change;	GCC_K2_U01, GCC_K2_U02, GCC_K2_U03, GCC_K2_U06, GCC_K2_U07	Multimedia presentation
U3	verifies the reliability and critically assesses various sources of information on climate change.	GCC_K2_U05, GCC_K2_U06, GCC_K2_U07	Multimedia presentation
Social competences – Student:			
K1	is prepared to effectively and with respect to the opponents argue against fake news in the topic of climate change.	GCC_K2_K01, GCC_K2_K02, GCC_K2_K03, GCC_K2_K04, GCC_K2_K06, GCC_K2_K07	Multimedia presentation

Study content

No.	Course content	Subject learning outcomes	Activities
1.	During the course the natural cycles of the climate variability will be discussed (annual to decadal, century scale, millennial; Heinrich and Dansgaard-Oeschger Events).	W1	Lecture
2.	The causes and mechanisms of the current climate change will be presented (particular attention will be paid to differentiation between natural and anthropogenic causes of climate variability).	W1, U1	Lecture
3.	Future climate scenarios will be discussed base on the analysis of the IPCC report and case studies selected from this publiaction.	W2, U2, K1	Lecture

No.	Course content	Subject learning outcomes	Activities
4.	Basic "fake" theories on the contemporary climate change will be reviewed and arguments oposing them will be discussed.	U2, U3, K1	Lecture

Additional information

Activities	Teaching and learning methods and activities
Lecture	Lecture with a multimedia presentation of selected issues

Activities	Credit conditions
Lecture	The final grade is the result obtained from the assessment of the multimedia presentation (100% of the assessment). Grading scale: 1. very good (5.0) - from 90% of points, 2. good plus (4.5) - from 80% of points, 3. good (4.0) - from 70% of points, 4. sufficient plus (3.5) - from 60% of points, 5. satisfactory (3.0) - from 50% of points, 6. unsatisfactory (2.0) - below 50% of points.

Literature

Obligatory

1. P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D. C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, Eds., IPCC, 2019: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems.

Calculation of ECTS points

Activities	Activity hours*
Lecture	15
Preparation of a multimedia presentation	15
Reading the indicated literature	20
Preparation for classes	5
Student workload	**Hours** 55
Number of ECTS points	**ECTS** 2

* academic hour = 45 minutes

Efekty uczenia się dla kierunku

Kod	Treść
GCC_K2_K01	The graduate is ready to implement and popularize actions serving the environmental protection
GCC_K2_K02	The graduate is ready to identify the influence of environmental processes onto the socio-economic processes, and also influence of anthropogenic activities onto the various components of the natural environment in various timescales
GCC_K2_K03	The graduate is ready to communicate, discuss and argue burning issues, hazards and problems associated with the climate, climate and environment changes for wider, non-scientific audience
GCC_K2_K04	The graduate is ready to use reliable sources of information associated with environmental hazards and climate and critical assessments of these sources
GCC_K2_K06	The graduate is ready to think and act creatively
GCC_K2_K07	The graduate is ready to undertake the cooperation within the crisis management teams and solve the conflicts
GCC_K2_U01	The graduate can vary between natural and anthropogenic causes of climate change and associated environmental changes and geohazards
GCC_K2_U02	The graduate can critically assess future climate change scenarios and associated environmental changes and geohazards
GCC_K2_U03	The graduate can conclude based on the data and information from various sources and geographical and environmental information
GCC_K2_U05	The graduate can an extended degree use the scientific terminology and vocabulary, read the advanced scientific literature with understanding
GCC_K2_U06	The graduate can critically assess the sources of information on climate and environmental change and associated geohazards
GCC_K2_U07	The graduate can look for and select the necessary information from the scientific literature and other written sources and based on that learm and continuously update the knowledge throughout the life
GCC_K2_U17	The graduate can cooperate in the team, efficiently plan the work for her/himself and the research/task team
GCC_K2_W02	The graduate knows and understands thoroughly, climate functioning and mechanisms of atmospheric processes and the anthropogenic influence on the climate
GCC_K2_W07	The graduate knows and understands thoroughly complex socio-economic processes in the local, regional and global scale and their influence on the occurrence of extreme environmental events
GCC_K2_W08	The graduate knows and understands thoroughly, the influence of the climate change, extreme environmental events and geohazards on the socio-economic processes
GCC_K2_W09	The graduate knows and understands thoroughly, relationship between climate and environmental change and necessity of formulation of the adaptation strategies
GCC_K2_W15	The graduate knows and understands advanced vocabulary associated with climate change, natural environment and geohazards
GCC_K2_W16	The graduate knows and understands thoroughly, the rules and regulations associated with protection of intellectual property and copyrights
GCC_K2_W17	The graduate knows and understands thoroughly, the literature in the field of climate change, geohazards as well as basic environmental and social research
GCC_K2_W18	The graduate knows and understands thoroughly, the most up to date trends in science and implementation of the newest scientific achievements in studies field