GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Climate change consequences, PG_00062785		
Field of study	Mathematics		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2023/2024
Education level	second-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	e-learning
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Energy Conversion and Storage -> Faculty of Chemistry		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Anna Dettlaff	
	Teachers	dr inż. Anna Dettlaff	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	0.0	0.0	30

E-learning hours included: 30.0

Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=19108

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	30	2.0	18.0	50

Subject objectives

To familiarise students with the scientific explanation of currently occurring climate change and to familiarise students with the environmental and social consequences.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems	The student has advanced knowledge of solutions used to reduce the impact on global warming; the student is able to search, select and critically analyze the available sources of information on climate change and to make their creative interpretation	[SU4] Assessment of ability to use methods and tools
[K7_K71] is able to explain the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment	The student has an extended knowledge of the phenomena, mechanisms and feedbacks occurring in the Earth's climate system	[SK5] Assessment of ability to solve problems that arise in practice
[K7_W71] has general knowledge in humanistic, social, economic or legal sciences, including their fundamentals and applications	The student is aware of the social, economic and psychological consequences of climate change in the world	[SW1] Assessment of factual knowledge

Subject contents	The concept of the greenhouse effect The climate as a public good Psychological consequences of climate change Barriers to pro-environmental behaviour Social and political aspects of the climate crisis Climate change mythsNatural and anthropogenic causes of climate change Carbon cycle in natureMechanisms and feedbacks controlling climate change Environmental consequences of climate change The concept of biodiversity Scientific methods for assessing and monitoring climate change Scenarios for changes in temperature, sea level, precipitation Climate models Discussion of recent reports published by the Intergovernmental Panel on Climate Change Mitigation of climate change
Prerequisites and co-requisites	

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Course assessment	60.0%	85.0%
Quizzes during lectures	0.0%	15.0%

Recommended reading

Basic literature	Popkiewicz M., Kardaś A., Malinowski S., Nauka o Klimacie, Wydawnictwo Nieoczywiste, 2023 M. Budziszewska, A. Kardaś, Z. Bohdanowicz, Klimatyczne ABC. Interdyscyplinarne podstawy współczesnej wiedzy o zmianie klimatu, Wydawnictwa Uniwersytetu Warszawskiego, 2023
Supplementary literature	Thunberg G., Książka o klimacie, Wydawnictwo Agora, 2023
eResources addresses	Uzupełniające Adresy na platformie eNauczanie: Zmiany klimatyczne i ich skutki środowiskowe - Moodle ID: 23975 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=23975

Example issues/ example questions/ tasks being completed	List and explain the barriers to pro-environmental behaviour. List the anthropogenic causes of the greenhouse effect? What is the mitigation of climate change? What social consequences of climate change do you know?

Work placement	Not applicable