GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Meteorology and climatology, PG_00069284		
Field of study	Chemical Technology		
Date of commencement of studies	February 2025	Academic year of realisation of subject	2025/2026
Education level	second-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Corrosion and Electrochemistry -> Faculty of Chemistry -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Juliusz Orlikowski	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	15.0	0.0	15.0	0.0	45

E-learning hours included: 0.0

eNauczanie source addresses:

Moodle ID: 1097 Meteorologia i klimatologia
https://enauczanie.pg.edu.pl/2025/course/view.php?id=1097

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	45	5.0	25.0	75

Subject objectives

The aim of the course is to present basic issues related to meteorology and climatology.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_W03] selects methods of data analysis, including statistical and modelling, useful for solving scientific and technological problems	Students learn about how numerical weather forecasts work.	[SW1] Assessment of factual knowledge
[K7_U06] applies computer, statistical and specialised database methods to solve scientific and technological problems in technology and related fields	Students learn how to collect data from the Internet to determine weather forecasts.	[SU1] Assessment of task fulfilment
[K7_K01] critically evaluates the content of cognitive and practical problems	The student learns to identify the scientific causes of global warming.	[SK2] Assessment of progress of work

Subject contents

Basics of dynamic meteorology. Climatic processes occurring on Earth. Physical processes occurring in the atmosphere. Evolution of low and high pressure systems. Types and types of atmospheric fronts. Types and types of cloud cover. Interpretation of aerological surveys. Particle balance in the atmosphere. Convective phenomena, convective indices, principles of numerical forecasts. Interpretation of satellite images. Obtaining synoptic and meteorological data

Prerequisites and co-requisites

Basics of gas and liquid physics

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Lecture	60.0%	80.0%
Seminar	60.0%	20.0%

Recommended reading

Basic literature	Nauka o klimacie, Marcin Popkiewicz, Aleksandra Kardaś, Szymon Malinowski. Warszawa, 2018 Meteorologia i klimatologia, Krzysztof Kożuchowski, Warszawa, 2012

	Supplementary literature	Meteorologia. Teoria i praktyka, Adam Kantorysiński, Warszawa 2019
	eResources addresses	Basic https://enauczanie.pg.edu.pl/moodle/course/view.php?id=44871 - Access to the digital version of the course
Example issues/ example questions/ tasks being completed	Preparation of a weather forecast for a specific place, based on the acquired synoptic data	
Work placement	Not applicable	

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