University of Gdańsk

Subject card

Subject name and code	Meteorology and Climatology - laboratory, PG_00194272		
Field of study	Geography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
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	2.0
Learning profile	academic	Assessment form	credit
Conducting unit	Climate Research Laboratory -> Department of Physical Oceanography and Climate Research -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Małgorzata Owczarek	
	Teachers		

Lesson types

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

E-learning hours included: 0.0

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	1.0	19.0	50

Subject objectives

learning the basic sources of information in meteorology and climatology.

Learning the main principles and purposes of meteorological observations.

ability to prepare meteorological data and analyze them preparation for independent analysis of basic problems in the field of meteorology and climatology

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOGRL3-U05] can use scientific language and express opinions and discuss topics related to geography in Polish and a foreign language	Student is able to use scientific language correctly, is able to use concepts from the field of meteorology and climatology in written and oral statements, is able to use basic terminology from the field of meteorology and climatology in English	[SU1] oral statement/conversation/ discussion [SU3] text preparation/written work [SU4] test/exam - oral or written
[GEOGRL3-U04] can apply field and laboratory methods and research tools, spatial analysis methods, and methods of presenting research results in the field of geography, assess their usefulness for tasks in which the application goal of geography can be realized	Student is able to select and apply various research methods to carry out tasks in the field of meteorology and climatology, the student knows the basic types of measuring equipment in meteorology and the general principles of using them	[SU1] oral statement/conversation/ discussion [SU4] test/exam - oral or written [SU5] implementation of a problem task
[GEOGRL3-U03] can plan and conduct, independently and as part of a team, simple research in the field of geography under the supervision of a scientific advisor, based on the necessary information from professional literature and other sources	Student is able to select and use meteorological information from various sources, both in printed form and on the Internet; is able to select and apply research methods in the field of meteorology and climatology to achieve the set research goal.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU5] implementation of a problem task
[GEOGRL3-U02] can use theoretical knowledge in the field of geography and available sources of information to correctly interpret basic natural, social, economic, and political processes and phenomena	Student is able to combine theoretical knowledge in the field of meteorology and climatology in the analysis and interpretation of basic meteorological and climatic processes and phenomena and the relationships between these processes and economic and social phenomena.	[SU1] oral statement/conversation/ discussion [SU4] test/exam - oral or written [SU5] implementation of a problem task
[GEOGRL3-W06] knows advanced methods of acquiring, processing, and compiling geographic environmental data, as well as methods of analyzing and interpreting such data	Student has an advanced understanding of the methods and principles of meteorological data processing, is able to analyze and draw conclusions about processes in the natural environment and their connections with anthropogenic processes.	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW5] implementation of a problem task
[GEOGRL3-W04] has advanced knowledge of the Earth's geographical environment, understood as a unified system of interconnected and interacting components; its diversity, functioning, and dynamics of change, including the interaction of environmental components in the area of the South Baltic Coast and Lake District	Student knows and understands the role of processes occurring in the atmosphere and the role of climate in the geographical environment system, especially the environmental system of the South Baltic Coast and South Baltic Lake District	[SW1] oral statement/ conversation/discussion [SW3] text preparation/written work

Subject contents

Rules of a network of meteorological observations in the world and in Poland.

Basic data sources in climatology.

Meteorological elements information about the observation and measurements methodology

Statistical and graphic methods of climatological studies.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
activity during laboratories	51.0%	10.0%
correctness and timeliness of tasks performed	51.0%	20.0%
written test	51.0%	70.0%

Recommended reading	Basic literature	Kożuchowski K. (ed.), 2012, Meteorology and climatology, PWN, Warsaw Niedźwiedź T. (ed.), 2003, Meteorological Dictionary, IMWM, Warsaw. WMO, 1992, International meteorological vocabulary
	Supplementary literature	Malinowska M. (ed.), 2010, Guide to exercises in meteorology and climatology, UG Publishing House, Gdańsk Woś A., 2001, Meteorology for geographers, PWN, Warsaw Kożuchowski K, , 2011, Polish climate, new look, PWN, Warsaw Popkiewicz M., Kardaś A., Malinowski Sz, 2018 Climate science, Post Factum Publishing House, Warsaw Prześlij opinię
	eResources addresses	
Example issues/ example questions/ tasks being completed	What phenomenon does the photograph represent? What is it and how is it created? What unit is the height of snow cover measure in? Determine what barometric system is represented by the isobars on the marked (red) fragment of the synoptic map	
Work placement	Not applicable	

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