University of Gdańsk

Subject card

Subject name and code	Meteorological and Hydrological Forecasting and Warning - lecture, PG_00201452						
Field of study	Water Management and Protection of Water Resources						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2027/2028		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Subject group related to practical vocational preparation		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	4		ECTS credits		1.0		
Learning profile	practical		Assessment form		credit		
Conducting unit	Pracownia Hydrologii -> Department of Hydrology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Paweł Przygrodzki				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	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	15		1.0		9.0	25
Subject objectives	Learn the main methods of forecasting and warning of meteorological and hydrological phenomena						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GWOZWL3-K03] The student has the ability systematic further education and professional development, updating and expand their knowledge and skills, understands the limitations of his own knowledge in the context of civilization progress and recognizes authorities in the professional and scientific environment.	K_K03 He is ready for systematic further education and professional development, updating and expanding his knowledge and skills in the field of hydrological and meteorological forecasting and warning, understands the limitations of his own knowledge in this field in the context of the progress of civilization, and recognizes the authorities in the professional and scientific environment h	[SK5] implementation of a problem task
[GWOZWL3-U07] The student can use literature and other available sources of information, including information technology, multimedia, Internet, databases, and select and critically evaluate information.	K_U07 Able to use available sources of information, including information technology, multimedia, Internet resources, databases, and to select and critically evaluate information on various aspects of hydrometeorological forecasts	[SU5] implementation of a problem task
[GWOZWL3-U04] The student can distinguish between objectives, analyze and evaluate modern strategies for managing environment especially in the context of ecosystem approach to managing human activities in the environment with taking into account relevant law regulations and the indication of administrative bodies responsible for the management of waters and the protection of water resources.	K_U04 Be able to distinguish the objectives, analyze and evaluate modern methods of forecasting and warning of meteorological and hydrological phenomena, taking into account the relevant legislation and the indication of administrative bodies responsible for forecasting and warning	[SU5] implementation of a problem task
[GWOZWL3-W03] The student has an advanced knowledge and understanding of the organisation and legal framework of environmental protection, nature conservation and water management, as well as the principles governing the organisation and operation of hydrological and meteorological services and the fundamentals of Integrated Environmental Monitoring.	K_W03 Knows and understands the legal basis for the development and distribution, as well as the way of organization and regulation governing the forecasting and warning system.	[SW4] test/exam - oral or written

Subject contents

The legal basis for the development and distribution of forecasts, warnings and other products developed as part of the meteorological and hydrological cover of the country The method of organization and regulations governing the forecasting and warning system. Visualization and distribution of meteorological and hydrological forecasts and warnings Other products of meteorological and hydrological cover of the country Characteristics of the work of a meteorological and hydrological synoptician National and EU documents of protection against extreme phenomena

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
test	51.0%	50.0%
evaluation of project work	51.0%	50.0%

Recommended reading	Basic literature	- WMO, 2018, Guide to Meteorological Instruments and Methods of Observation, WMO No. 8, Genewa. - WMO, 2008 (aktualizacja 2020), Guide to Hydrological Practices, Volume I: Hydrology - From Measurement to Hydrological Information& Volume II Management of Water Resources and Application of Hydrological Practices, WMO No. 168, Genewa. - WMO, 2019, Manual on the Global Data-Processing and Forecasting System, WMO No. 485, Genewa. - WMO, 2012, Manual on Marine Meteorological Services Volume I - Global Aspects & Volume II - Regional Aspects, WMO No. 558, Genewa. - WMO, 2018, Guide to Marine Meteorological Services, WMO No. 471, Genewa.
	Supplementary literature	- WMO, 2003, Meteorological systems for hydrological purposes, WMO No. 813, Genewa.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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