University of Gdańsk

Subject card

Subject name and code	Water monitoring, PG_00193886						
Field of study	Geography						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2028/2029			
Education level	Bachelor's studies		Subject group	Obligatory subject group in the field of study Optional subject group			
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	3		Language of instruction	English			
Semester of study	5		ECTS credits	3.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Centrum Monitoringu i Ochrony Wód -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor	dr Włodzimierz Golus					
	Teachers						
Lesson types	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: 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		2.0	43.0	75	
Subject objectives	Familiarization with the basic methods of water monitoring in Poland and in the world. The course includes auditorium and field classes. Classes are carried out in a blocked form at the Center for Water Monitoring and Protection in Borucino.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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	The student is able to plan and conduct, independently and in a team, a simple research procedure within the field of geographical sciences, under the supervision of an academic tutor, using necessary information from scholarly literature and other relevant sources.	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[GEOGRL3-K02] is prepared to bear full responsibility for the actions taken actions and adhere to the principles of professional ethics and principles of intellectual honesty, is aware of the importance of a professional approach in professional life professional life	The student is prepared to take full responsibility for undertaken activities, adhere to professional ethics and principles of academic integrity, and demonstrate awareness of the importance of a professional approach in academic and professional practice.	[SK8] observation of student's independent or team work
[GEOGRL3-U01] can dentify and analyze basic natural and socio-economic processes and phenomena, analyze their causes and course, and formulate and discuss basic issues concerning physical-geographical conditions and the social, economic, and political situation and their changes on various spatial scales	The student is able to identify and analyse basic natural processes and phenomena, particularly those related to the functioning of aquatic environments, interpret their causes and dynamics, and formulate and discuss key issues concerning physical-geographical conditions and their changes across different spatial scales.	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[GEOGRL3-W02] knows and understands key concepts and theories in geography, as well as advanced processes and phenomena related to spatial diversity and the distribution of processes and phenomena on the Earth's surface at various spatial scales, particularly in Poland	The student is able to explain and interpret key concepts and processes in hydrology and aquatic geography, with particular emphasis on the spatial variability of water-related phenomena across different spatial scales, based on field measurements and laboratory analyses.	[SW2] presentation/project/paper/ report
[GEOGRL3-W06] knows advanced methods of acquiring, processing, and compiling geographic environmental data, as well as methods of analyzing and interpreting such data	The student is able to apply advanced methods of data collection, processing, analysis, and interpretation concerning the geographical environment, particularly aquatic systems, using field measurement techniques and basic laboratory methods.	[SW2] presentation/project/paper/ report
[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	The student is able to analyse the geographical environment as an integrated system of interrelated and interacting components, and to interpret the dynamics of environmental change based on field and laboratory data, with particular reference to lake and post-glacial landscapes.	[SW2] presentation/project/paper/ report

Subject contents

Getting to know the specifics of field work and the laboratory of environmental research, the principles of creating monitoring in Poland (PMŚ) and the flow of information at the national and international level; getting acquainted with the role of volunteers in water monitoring as part of citizen science; performing measurements to assess the condition of environmental components using modern equipment and measurement devices and high frequency data; interpretation of the obtained results of monitoring tests and cause-and-effect analysis.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
To perform a credit work - conduct research and present the results	51.0%	100.0%

Recommended reading

Basic literature	Water Framework Directive
Supplementary literature	Marcé R et al. 2016. Automatic High Frequency Monitoring for Improved Lake and Reservoir Management. Environmental Science&Technology, 50(20): 10780-10794
eResources addresses	

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

Document generated electronically. Does not require a seal or signature.