

Subject card

Subject name and code	Hydrographic Research Methods - field classes, PG_00201444						
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	Laboratory of Limnology -> Department of Hydrology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Kamil Nowiński				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	15.0	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	To learn practical methods of measuring hydrographic objects and interpreting measurement results. Identifying the relationship between hydrographic objects and their surroundings. Acquiring practical skills in hydrographic mapping.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[GWOZWL3-K05] The student has the ability take responsibility for the safety of their own work and that of others, dealing with emergencies, exercising caution in the laboratory and in the field, responsibility for entrusted equipment and apparatus.	The student is ready to work and cooperate in a group, being aware of the responsibility for his actions and taking into account the common good. He observes safety rules and is ready to bear responsibility for his own safety and the safety of others both during performing chamber work and during field work. Taking part in team and individual field work the student demonstrates responsibility for their correct and safe execution and care for the entrusted equipment and work safety	[SK8] observation of student's independent or team work
	[GWOZWL3-U01] The student can make basic observations of processes and phenomena occurring in the hydrosphere and carry out basic measurements of selected processes of water purification on a laboratory scale.	The student is able to select appropriate procedures, research tools and methods in order to carry out independent measurements of basic phenomena and processes occurring in the aquatic environment	[SU2] presentation/project/paper/report [SU6] demonstration of practical skills
	[GWOZWL3-U16] The student is able to demonstrate creativity in working independently and in team, taking on a variety of roles, including a leadership role.	Can plan and organize the correct execution of work Individual and group work. Using original methods, he is able to solve problems that arise during the implementation of tasks. When carrying out group work, he takes on different roles in the group. Asking and discussing, he completes gaps in knowledge and clarifies problems with the interpretation of natural phenomena	[SU1] oral statement/conversation/discussion [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
[GWOZWL3-W04] The student is familiar with advanced research techniques, methods and tools currently used in water management and the protection of water resources, in both the natural and social sciences, including advanced statistical and IT tools enabling the description, modelling and interpretation of data concerning phenomena and processes occurring in the aquatic environment, as well as tools for describing relationships within socio-ecological systems.	The student knows and understands basic terminology and processes related to the existence of hydrographic objects; knows basic research techniques and methods to describe, interpret and explain the relationships between the various natural phenomena that determine the functioning of hydrographic objects	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report	
Subject contents	1. morphometric measurements of lakes and rivers.2. measurements of water level fluctuations of surface and groundwater.3. Measurements of the capacity of groundwater outflows and flow rates of watercourses. 4. measurements of physical and chemical properties of waters.5. measurements of vertical elements of the water cycle.6. Hydrographic mapping and analysis of the hydrographic structure of the catchment area.7. Development and interpretation of measurement results.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Conducting field research and interpreting and presenting the results (written and oral)	51.0%	100.0%

Recommended reading	Basic literature	Gutry-Korycka M., Werner-Więckowska H., 1996, Guide to hydrographic field surveys, Wyd. Nauk. PWN, Warsaw, 276 p. Lange W. (ed.), 1993, Methods of limnological research, UG, Gdansk, Poland, GIS-3 Technical Guidelines, Hydrographic Map of Poland - scale 1:50,000, 2005, GUGiK, Warsaw. Paślawski Z., 1973, Methods of river hydrometry, PIHM Instructions and Manuals No. 115, Wyd. Komunikacji i Łączności, Warsaw.
	Supplementary literature	-
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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