University of Gdańsk

Subject card

Subject name and code	Hydrographic research methods - field exercises, PG_00091520		
Field of study	Water Management and Protection of Water Resources		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
Education level	undergraduate studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research 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	
Conducting unit	Pracownia Limnologii -> Katedra Hydrologii -> Faculty of Oceanography and Geography		
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	5.0	10.0	30

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-U16] 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-K05] 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] 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-W04] research techniques, methods and tools currently used in water management and protection of water resources both in the field of natural sciences and social sciences, including basic statistical and information technology tools that make it possible to describe, model and interpret data on phenomena and processes occurring in the aquatic environment, as well as tools for describing relationships in social-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.Pasławski Z., 1973, Methods of river hydrometry, PIHM Instructions and Manuals No. 115, Wyd. Komunikacji i Łączności, Warsaw.
	Supplementary literature	-
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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