University of Gdańsk

Subject card

Subject name and code	Hydrographic Research Method - lectures, PG_00201445		
Field of study	Water Management and Protection of Water Resources		
Date of commencement of studies	October 2027	Academic year of realisation of subject	2028/2029
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	2.0
Learning profile	practical	Assessment form	exam
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	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	1.0	19.0	50

Subject objectives

Discussion of methods for the study of hydrographic objects and interpretation of measurement results.Characterization of various typologies and classifications of hydrographic objects.Discuss the role of hydrographic objects in the geographic environment.Identify the relationship between hydrographic objects and their environment.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GWOZWL3-W04] research techniques, methods and tools currently used in water management and the protection of water resources, in both the natural and social sciences, including basic 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 that allow describing, interpreting and explaining the relationships between the various natural phenomena that condition the functioning of hydrographic objects	[SW4] test/exam - oral or written
[GWOZWL3-U02] select and independently apply basic research techniques and tools, with adhering to established analytical procedures in the field of environmental research in water management, adequately to the considered research problem.	Can select appropriate research techniques and tools to solve tasks and problems arising from the variability of natural phenomena. Using his/her knowledge, he/she is able to identify regularities and draw conclusions in the field of causes and effects of phenomena occurring in the water environment and mutual relations between the hydrographic object and its environment	[SU4] test/exam - oral or written

Subject contents

1. Hydrography and hydrometry as fields of water science.2. Division of hydrographic objects.3. Basic classifications of hydrographic objects.4. Determination of the genesis of hydrographic objects and their identification.5. Morphometric parameters of lakes and rivers.6. Basic physico-chemical characteristics of waters and sediments in individual hydrographic objects.7. Natural and anthropogenic transformations of hydrographic objects.8. Hydrological characteristics and methods of quantification of the water cycle.9. The role of the catchment and its individual components in the functioning of the water environment.10. Remote sensing and GIS techniques in hydrographic analysis of catchments.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Written exam with open and closed questions (tasks)	51.0%	100.0%

Recommended reading

Basic literature	Borowiak D., 2011, Optical properties of lake waters of Pomerania, Wyd. UG, Gdansk 275 p.Bajkiewicz-Grabowska E., Magnuszewski A., Mikulski Z., 1993, Hydrometry, Wyd. Nauk NWN, Warsaw, 314 p.Lange W. (ed.), 1993, Methods of limnological research, UG, Gdansk, Poland.Dębski K., 1965, Hydrology: Hydrometrics, Part 1, Publishing Department of SGGW, Warsaw, 223 p.
Supplementary literature	Byczkowski A., 1999, Hydrology, Volume 1, Wyd. SGGW, Warsaw, 416 pChoiński A., 2007, Physical Limnology of Poland, Wyd. UAM, Poznań, 547 p.Pasławski Z., 1973, Methods of river hydrometry, PIHM Instructions and Manuals No. 115, Wyd. Komunikacji i Łączności, Warsaw.
eResources addresses	

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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