

Subject card

Subject name and code	Hydrology field course, PG_00091506						
Field of study	Water Management and Protection of Water Resources						
Date of commencement of studies	October 2024	Academic year of realisation of subject				2024/2025	
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	1	Language of instruction				Polish polish	
Semester of study	2	ECTS credits				2.0	
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 Wojciech Maślanka				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	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		12.0		18.0	60
Subject objectives	<p>Understanding the causes and geographical conditions of water circulation in nature.</p> <p>Spatial differentiation of hydrosphere objects and their characteristics.</p> <p>Understanding the human impact on shaping the hydrosphere.</p> <p>Learning the sources of hydrological information.</p>						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[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	K_U02 Using his knowledge, he can choose appropriate techniques and tools used in field and laboratory research with behavior established procedures for testing the aquatic environment, appropriate to the one discussed research issues.	[SU5] implementation of a problem task
	[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	K_K05 Performs tasks conscientiously, taking responsibility for the entrusted person research equipment and apparatus. Works in the field and in the laboratory carefully maintaining occupational safety standards. He can adequately respond in emergency situations.	[SK8] observation of student's independent or team work
	[GWOZWL3-U16] demonstrate creativity in working independently and in team, taking on a variety of roles, including a leadership role	K_U16 Is able to plan and organize work, can work independently, but also in teamwork, depending on current needs resulting from the implementation of the task can assume various roles, including skill group management	[SU5] implementation of a problem task [SU8] 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	K_U01 Is able to properly observe the processes and phenomena taking place in the aquatic environment. Is able to make basic selected measurements processes and phenomena. Familiarizes himself with laboratory water analysis techniques	[SU5] implementation of a problem task
	[GWOZWL3-U15] by solving in groups the assigned problem situations, appropriately set priorities to achieve task defined by themselves or others	K_U15 Is able to work in a group, divide tasks appropriately in such a way that: achieve the intended goal.	[SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[GWOZWL3-W01] in advanced basic biological, physical and chemical processes and phenomena, as well as analyzes their mutual relations and course in relation to natural environment and socio-ecological systems	K_W01 Knows and understands physical, chemical and biological processes and phenomena occurring in the aquatic environment. It examines mutual relationships and the course of these processes and phenomena in relation to the natural environment i anthropogenic.	[SW5] implementation of a problem task

Subject contents	<p>Exercise issues</p> <p>Familiarization with hydrographic objects in the field</p> <p>Flow measurement using various methods</p> <p>Recognizing the types of groundwater outflows and measuring their efficiency</p> <p>Measurement of groundwater level</p> <p>Hydrographic mapping</p> <p>Morphometry and bathymetry of lakes</p> <p>Study of the basic physical and chemical characteristics of surface and groundwater</p> <p>Elements of water management</p> <p>Threats and counteracting pollution of the water environment</p> <p>Interpretation of the hydrographic map of Poland at a scale of 1:50,000</p> <p>Concept and implementation of problem work in the field of hydrology and water management, and presentation of the obtained results - group work</p>								
Prerequisites and co-requisites	Completion of lecture and exercises in the field of hydrology and oceanography. Knowledge of: physical geography, mathematics and statistics								
Assessment methods and criteria	<table border="1" data-bbox="448 1128 1477 1196"> <thead> <tr> <th data-bbox="448 1128 794 1162">Subject passing criteria</th> <th data-bbox="794 1128 1141 1162">Passing threshold</th> <th data-bbox="1141 1128 1477 1162">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 1162 794 1196">completion of final work</td> <td data-bbox="794 1162 1141 1196">51.0%</td> <td data-bbox="1141 1162 1477 1196">100.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	completion of final work	51.0%	100.0%
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Recommended reading	Basic literature	<p>A. Literature required for the final pass of the course:</p> <p>Bajkiewicz-Grabowska E., Mikulski Z., 2002, Guide to exercises in general hydrology, PWN, Warsaw.</p> <p>Drwal J., Gołębiewski R., Lange W., 1975, Borucinka River Basin as an example of a representative catchment area of the Kashubian Lake District, Zesz. Science. Department BiNOZ UG, Geography 3.</p> <p>Gutry-Korycka M., Werner- Więckowska H., 1989, Guide to hydrographic field research, PWN, Warsaw. Development instructions hydrographic map of Poland, 1964, Document. Geogr. IG PAN. A.2.</p>							
	Supplementary literature	<p>B. Additional literature:</p> <p>Pociask-Karteczka J., (ed.), 2003, Catchment area, properties and processes, UJ IGiGP, Kraków. Terrain Information System,</p> <p>Hydrographic Map of Poland, scale 1:50,000 in analog and numerical form, Technical Guidelines K-3.4, 1997, GUGiK, Warsaw.</p> <p>Technical guidelines K 3-4. Hydrographic map on a scale of 1: 50,000, 1985, Warsaw</p>							
	eResources addresses	Adresy na platformie eNauczanie:							

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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