

Subject card

Subject name and code	Hydrogeology, PG_00117429						
Field of study	Geology						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Leszek Łęczyński				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	15.0	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		10.0		20.0	45
Subject objectives	Production of analyses, maps and hydrogeological cross-sections						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[GEOLL3_U06] is able to identify geological objects and combine them with geological processes and anthropogenic environmental transformations		is able to identify hydrogeological objects and link them to geological processes and anthropogenic transformations of the environment		[SU5] implementation of a problem task		
	[GEOLL3_W05] knows the structure and geological development of selected regions in Poland and in the world		knows the structure and hydrogeological development of selected regions in Poland and worldwide		[SW3] text preparation/written work		
	[GEOLL3_W07] knows the anthropogenic transformation of the natural environment, including the effects of the exploitation of mineral resources		is familiar with anthropogenic transformation of the natural environment, including the effects of groundwater exploitation		[SW3] text preparation/written work		
	[GEOLL3_U01] is able to apply basic measurement and analytical techniques in the field and in the laboratory, plans to conduct research and measurements		is able to apply basic measuring and analytical techniques in the field and laboratory, and to plan tests and measurements in hydrogeology		[SU5] implementation of a problem task		
	[GEOLL3_W02] knows and understands the terminology appropriate in science and natural sciences		knows and understands terminology specific to hydrogeology		[SW5] implementation of a problem task		

Subject contents	Hydrogeological cross-section.Map of hydroisohips and hydroisobaths.Map of infiltration conditions.Determination of filtration coefficient.Analysis of the chemical composition of groundwater and marine water.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	colloquium	51.0%	100.0%
Recommended reading	Basic literature	Chelmiński W., 2002. Woda. Zasoby, degradacja, ochrona, Wyd. Naukowe PWN, Warszawa Macioszczyk A., Dobrzyński, 2003. Hydrogeochemia wód podziemnych strefy aktywnej wymiany, Wyd. Naukowe PWN, Warszawa Paczyński B, Sadurski A. (red.), 2007. Hydrogeologia regionalna Polski, PIG, Warszawa Pazdro Z., Kozerski B., 1989. Hydrogeologia ogólna, Wyd. Geologiczne, Warszawa Piekarek-Jankowska H., 1994. Zatoka Pucka jako obszar drenażu wód podziemnych, Wyd. Uniwersytetu Gdańskiego Turek S. (red), 1971. Poradnik hydrogeologa, Wyd. Geologiczne, Warszawa Wieczysty A., 1982. Hydrogeologia inżynierska, Wyd. Naukowe PWN, Warszawa	
	Supplementary literature	-Kleczkowski, A. S., (red.), 1984. Ochrona wód podziemnych, Wyd. Geologiczne, Warszawa Kozerski B.(red), 2007. Gdański system wodonośny, Wyd. Politechniki Gdańskiej, Gdańsk Macioszyk A., 1987. Hydrogeochemia, Wyd. Geologiczne, Warszawa Pleczyński J., 1981. Odnawialność zasobów wód podziemnych, Wyd. Geologiczne, Warszawa Kleczkowski A., Różkowski A., 1997. Słownik hydrogeologiczny, Wydawnictwo TRIO Ustawa, Prawo wodne. z dnia 18 lipca 2001 r. (Dz. U. 2001.115.1229	
	eResources addresses		
	Example issues/ example questions/ tasks being completed	Map of hydroisohips and hydroisobaths.	
Work placement	Not applicable		

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