University of Gdańsk

Subject card

Subject name and code	Hydrogeology - laboratory classes, PG_00193075		
Field of study	Geology		
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 scientific research 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	2.0	33.0	50

Subject objectives

Production of analyses, maps and hydrogeological cross-sections

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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
[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_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_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_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

<table>
<tr><td>Subject contents</td><td>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.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>colloquium</td><td>51.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Chełmicki 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</td></tr>
<tr><td>Supplementary literature</td><td>-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</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>Map of hydroisohips and hydroisobaths.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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