University of Gdańsk

Subject card

Subject name and code	Field classes - Hydrogeology and applied geology II, PG_00199151		
Field of study	Geology		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2028/2029
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Optional subject group 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	3	Language of instruction	Polish
Semester of study	5	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	20.0	0.0	0.0	0.0	20

E-learning hours included: 0.0

Additional information:

Fieldwork carried out on the R/V Oceanograf and at groundwater abstraction points

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	20	3.0	27.0	50

Subject objectives	Practical learning of selected fieldwork methods used on land and at sea in the fields of applied geology and coastal hydrogeology

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOLL3_W06] knows statistical and IT tools as well as the principles of preparing engineering and geological documentation and cartographic materials	is able to use statistical and information technology tools, as well as the principles for preparing geological, engineering and hydrogeological documentation	[SW2] presentation/project/paper/ report
[GEOLL3_W08] knows the basic principles of occupational health and safety, legal regulations conditioning geological and engineering activities	uses basic health and safety principles in fieldwork and is aware of the legal regulations governing geological, engineering and hydrogeological activities	[SW1] oral statement/ conversation/discussion
[GEOLL3_U02] has the skill of analytical and synthetic way of reasoning leading to correct inference based on the results obtained or the facts presented	possesses the ability to think analytically and synthetically, leading to sound reasoning based on results obtained or facts presented in the fields of hydrogeology and applied geology	[SU2] presentation/project/paper/ report
[GEOLL3_U05] can reconstruct the history of geological development of selected regions in Poland and in the world on the basis of maps, cross-sections and exposures in the field	is able to interpret the origin of selected areas of the seabed and coastal zone on the basis of maps, geological cross-sections and field survey results	[SU3] text preparation/written work
[GEOLL3_K01] is willing to plan and implement, individually or as a team, the next stages of the entrusted task, take responsibility for its results, effectively cooperate in the team by performing various roles in it	is able to plan and carry out, either individually or as part of a team, the subsequent stages of an assigned task in the field of hydrogeology and applied geology, take responsibility for the results, and work effectively within a team, performing various roles	[SK2] presentation/project/paper/ report
[GEOLL3_K05] is willing to comply with the principles of occupational safety and health, takes care of specialized equipment entrusted to them, is aware of the risk connected with the performed work	is able to apply basic health and safety principles whilst carrying out fieldwork in the fields of applied geology and hydrogeology	[SK6] demonstration of practical skills
[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 measurement and analytical techniques in the field, and plans research and measurements in the field of hydrogeology and applied geology	[SU3] text preparation/written work
[GEOLL3_K02] is willing to take full responsibility in the field of actions taken and to comply with the principles of professional ethics and intellectual honesty, is aware of the importance of a professional approach in every situation	is prepared to accept full responsibility for the legal consequences of failing to comply with intellectual property protection rules	[SK3] text preparation/written work

Subject contents

Preparation of a macroscopic description sheet for seabed soils.
Interpretation of seabed morphology based on bathymetric measurements.
Interpretation of the geological conditions of the seabed for the foundation of a selected engineering structure.
Hydrogeological support for drilling and surveying operations.

Prerequisites and co-requisites

None

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Final project	51.0%	100.0%

Recommended reading	Basic literature	Bażyński J., Drągowski A., Frankowski Z., Kaczyński R., Rybicki S., Wysokiński L. Zasady Sporządzania Dokumentacji Geologiczno-Inżynierskich. Państwowy Instytut Geologiczny, Warszawa 1999. Kleczkowski A.S., Różkowski A. i inni (1997): Słownik hydrogeologiczny. Wydawnictwo TRIO. Arkady, Warszawa (Pozycja dostępna przez Internet) Kowalski W.C. Geologia Inżynierska. Wydawnictwa Geologiczne, Warszawa 1988r. Macioszczyk A. Podstawy hydrogeologii stosowanej, Wydawnictwo Naukowe PWN Polskie Normy PN-B-04481:1988, PN EN/ISO 14688-1,2:2006 Wiłun Z. Zarys Geotechniki. Wydawnictwa Komunikacji i Łączności, Warszawa 1982r. WYSOKIŃSKI L., 2007 Instrukcje, wytyczne, poradniki 428/2007. Komentarz do nowych norm klasyfikacji gruntowej. ITB, Warszawa.
	Supplementary literature	BADANIA GEOLOGICZNO-INŻYNIERSKIE GEOFIZYKA INŻYNIERSKA. Pod redakcją merytoryczną Szymona Ostrowskiego, Grzegorza Pacanowskiego, Edyty Majer, Marty Sokołowskiej. Warszawa 2023 Państwowy Instytut Geologiczny Państwowy Instytut Badawczy
	eResources addresses	
Example issues/ example questions/ tasks being completed	Macroscopic description of seabed sediments Conditions for the equilibrium between freshwater and seawater in the coastal zone	
Work placement	Not applicable	

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