



Subject card

Subject name and code	, PG_00069425						
Field of study	Hydrogeologia i odwodnienia						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2025/2026		
Education level	first-cycle studies		Subject group				
Mode of study	Part-time studies		Mode of delivery		at the university		
Year of study	4		Language of instruction		Polish		
Semester of study	7		ECTS credits		1.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Geotechnical and Hydraulic Engineering -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marzena Wójcik				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	5.0	5.0	0.0	0.0	0.0	10
	E-learning hours included: 0.0						
	eNauczanie source addresses: Moodle ID: 2621 Hydrogeologia i odwodnienia niestacjonarne https://enauczanie.pg.edu.pl/2025/course/view.php?id=2621						
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	10		2.0		13.0	25
Subject objectives	To familiarize students with basic principles of design and operation of dewatering systems, with focus on construction dewatering.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_K01] Is aware of the key aspects of professional, ethical and social responsibility related to management, business operation, decision making and opinion formulation in civil engineering.	Students gain knowledge about the impact of dewatering systems on surroundings	[SK5] Ocena umiejętności rozwiązywania problemów występujących w praktyce
	[K6_U06] Conduct engineering activities in civil engineering subject area, using and applying practical knowledge and understanding of materials, equipment and tools, processes and technologies.	Student gain skills in designing systems	[SU1] Ocena realizacji zadania
	[K6_W07] Understand the investment's impact on the environment and the interrelationships and dependencies between the building structure and the natural environment	Students gain knowledge about the impact of dewatering systems	[SW3] Ocena wiedzy zawartej w opracowaniu tekstowym i projektowym
	[K6_W06] Demonstrates practical knowledge and understanding of materials, devices and tools, processes and technologies in the field of civil engineering (and their limitations).	Students have knowledge on design and operation of dewatering systems	[SW3] Ocena wiedzy zawartej w opracowaniu tekstowym i projektowym
	[K6_U07] Design and build engineering structures in a sustainable manner, with care for the natural environment and a minimum carbon footprint	Students gain skills in designing dewatering systems	[SU1] Ocena realizacji zadania
Subject contents	Course content – lecture Groundwater occurrence and its impact on structures. Basic principles of design and operation of dewatering systems, with focus on construction dewatering. Course content – exercises Calculating groundwater discharge to horizontal drains and excavations. Groundwater wells placing around excavation.		
Prerequisites and co-requisites	Knowledge of soil mechanics and foundation engineering		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	completing project exercises	50.0%	100.0%
Recommended reading	Basic literature	E. Mielcarzewicz (1990), Odwadnianie terenów zurbanizowanych i przemysłowych J. Sokołowski, A. Żbikowski (1993), Odwodnienia budowlane i osiedlowe	
	Supplementary literature	...	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Calculating surface runoff, groundwater discharge to excavation. Placing groundwater wells around excavation.		
Practical activities within the subject	Not applicable		

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