



Subject card

Subject name and code	, PG_00069427						
Field of study	Badania laboratoryjne w GiH						
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 -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Witold Sterpejkowicz-Wersocki				
	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		8.0	25
Subject objectives	The aim of the course is to experimentally illustrate phenomena occurring in geotechnics and hydraulic engineering.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W07] Understand the investment's impact on the environment and the interrelationships and dependencies between the building structure and the natural environment	The student knows how to experimentally determine the distribution of water flow velocity in a laboratory channel and determine the flow rate. The student can interpret the soil compressibility test results and use it to design foundations.	[SW1] Ocena wiedzy faktograficznej
	[K6_W06] Demonstrates practical knowledge and understanding of materials, devices and tools, processes and technologies in the field of civil engineering (and their limitations).	The student knows the methods for determining the flow rate of water from under a weir gate. The student knows the physical and mechanical properties of soils and can point the laboratory tests to determine those properties.	[SW1] Ocena wiedzy faktograficznej
	[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.	The student conducts laboratory research in the field of geotechnics and hydraulic engineering.	[SU4] Ocena umiejętności korzystania z metod i narzędzi [SU1] Ocena realizacji zadania
	[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.	The student is responsible for the reliability of the laboratory tests conducted.	[SK5] Ocena umiejętności rozwiązywania problemów występujących w praktyce
	[K6_U07] Design and build engineering structures in a sustainable manner, with care for the natural environment and a minimum carbon footprint	The student is able to select solutions that minimize water flow resistance on spillways and other hydraulic devices. Student can choose the number and type of required soil investigations depending on construction type and its purpose.	[SU2] Ocena umiejętności analizy informacji
Subject contents	Laboratory tests in hydraulic engineering: measuring water flow velocity and flow rate in open channels, determining hydraulic states on grates, and measuring outflows from gates. Geotechnical tests: type of lab tests, physical and mechanical properties of soil that can be determined during geotechnical investigation, <u>interpretation of soil compressibility test for the foundation design.</u>		
Prerequisites and co-requisites	Basic knowledge of hydraulics, soil mechanics, and operation of measuring devices.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	class work and report	60.0%	80.0%
	attendance at classes	100.0%	20.0%
Recommended reading	Basic literature	1. Balcerski i inni Budownictwo Betonowe tom XVII, Budowle Wodne Śródlądowe, Arkady, Warszawa, 1969 2. Majewski W. - Hydrauliczne badania modelowe w inżynierii wodnej, IMGW, Warszawa 2019 3. Sobota J. - Hydraulika i hydrologia, Wydawnictwo AR we Wrocławiu, Wrocław, 2004 4. Myślińska, E. (2016). <i>Laboratoryjne badania gruntów i gleb.</i> Wydawnictwa Uniwersytetu Warszawskiego. 5. Wiłun, Z. (2013). <i>Zarys Geotechniki.</i> WŁK	
	Supplementary literature	Workplace instructions	
	eResources addresses		
Example issues/ example questions/ tasks being completed	No examples		
Practical activities within the subject	Not applicable		

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