



Subject card

Subject name and code	DEWATERING IN CIVIL ENGINEERING, PG_00044239						
Field of study	Civil Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group			Optional subject group		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	4	Language of instruction			Polish		
Semester of study	7	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Geotechnics, Geology and Marine Civil Engineering -> Faculty of Civil and Environmental Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Adam Szymkiewicz					
	Teachers	prof. dr hab. inż. Adam Szymkiewicz dr inż. Marzena Wójcik					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	0.0	0.0	0.0	30
	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	30	5.0		15.0		50
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_U17] has specialized skills in civil engineering within offered specialization	Students gain skills in designing dewatering systems			[SU4] Assessment of ability to use methods and tools		
	[K6_W16] Has deeper and adequate knowledge of civil engineering, within offered specialization	Students have knowledge on design and operation of dewatering systems			[SW3] Assessment of knowledge contained in written work and projects		
	[K6_W15] Has knowledge of construction law and environmental impact of investment realisation	Students gain knowledge about the impact of dewatering systems on the surroundings and methods to minimize this impact			[SW1] Assessment of factual knowledge		
Subject contents	Groundwater occurrence and its impact on structures. Horizontal drainage systems. Dewatering of excavations. Impact of dewatering on surroundings.						
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), <i>Odwadnianie terenów zurbanizowanych i przemysłowych</i> J. Sokołowski, A. Żbikowski (1993), <i>Odwodnienia budowlane i osiedlowe</i>					
	Supplementary literature	Cashman, P. M., & Preece, M. (2020). <i>Groundwater lowering in construction: a practical guide to dewatering</i> . CRC Press.					
	eResources addresses	Adresy na platformie eNauczanie:					

Example issues/ example questions/ tasks being completed	Calculating groundwater discharge to excavation. Placing groundwater wells around excavation. Calculating groundwater discharge to horizontal drains.
Work placement	Not applicable