



Subject card

Subject name and code	, PG_00059945							
Field of study	Environmental Engineering							
Date of commencement of studies	February 2023	Academic year of realisation of subject			2022/2023			
Education level	second-cycle studies	Subject group			Optional subject group			
Mode of study	Full-time studies	Mode of delivery			at the university			
Year of study	1	Language of instruction			Polish			
Semester of study	1	ECTS credits			3.0			
Learning profile	general academic profile	Assessment form			assessment			
Conducting unit	Department of Geotechnical and Hydraulic Engineering -> Faculty of Civil and Environmental Engineering							
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Adam Szymkiewicz						
	Teachers	dr inż. Angelika Duszyńska dr inż. Marzena Wójcik prof. dr hab. inż. Adam Szymkiewicz						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM	
	Number of study hours	15.0	15.0	0.0	15.0	0.0	45	
	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	45	5.0		30.0		80	
Subject objectives	To familiarize students with technical solutions used to protect the soil environment							
Learning outcomes	Course outcome	Subject outcome			Method of verification			
	K7_U06	student is able to use mathematical models describing contaminant migration in soils			[SU4] Assessment of ability to use methods and tools			
	K7_W05	student has knowledge about the influence of engineering activities on soil environment			[SW3] Assessment of knowledge contained in written work and projects			
	K7_U03	student is able to design elements of structures protecting slopes and landfills			[SU4] Assessment of ability to use methods and tools			
Subject contents	modeling contaminant transport in soils, soil improvement, protection of slopes, protection of landfills							
Prerequisites and co-requisites	completed courses on geotechnical engineering and hydrogeology or similar courses							
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade			
	evaluation of projects	50.0%			100.0%			
Recommended reading	Basic literature	Zadroga B., Olańczuk-Neyman K., Ochrona i rekultywacja podłoża gruntowego, Wydawnictwo Politechniki Gdańskiej, 2001						
		Malina G., Likwidacja zagrożenia środowiska gruntowo-wodnego na terenach zanieczyszczonych, Wydawnictwo Politechniki Częstochowskiej, 2007						
	Supplementary literature	nie dotyczy						
	eResources addresses	Adresy na platformie eNauczanie:						
Example issues/ example questions/ tasks being completed	computation of contaminant transport in soils, design of slope recultivation							

