



## Subject card

Subject name and code	Landfills, PG_00041421						
Field of study	Civil Engineering						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2023/2024		
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	2	Language of instruction			Polish		
Semester of study	3	ECTS credits			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Faculty of Civil and Environmental Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marzena Wójcik				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0	30.0	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		40.0	75
Subject objectives	The course broadens students understanding of basic regulations concerning on the landfills, its locations, leaking protection, closing, recultivation and protecting environment from its threats.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_W12] has deep and theoreticaly firm knowledge about geotechnical investigation, the rules of geotechnical design and engineering geology; knows the complicated processes in soil, techniques of foundations, draining systems, soil strengthening, geosynthetics applications, underground constructions and earthworks	Students have knowledge of geology, subsoil processes, geosynthetics usage			[SW2] Assessment of knowledge contained in presentation		
	[K7_K02] Rocognizes the significance of knowledge in solving cognitive and practical problems; reliably evaluates results of his own and team research	Student has knowledge of influence on practical problems			[SK5] Assessment of ability to solve problems that arise in practice		
	[K7_W14] knows and applies building codes and obeys the Construction Law; has knowledge on environmetal impact of investment realisation	The course broadens students understanding of environmental impacts of landfills			[SW2] Assessment of knowledge contained in presentation		
[K7_U15] has advanced skills in civil engineering within offered specialization/profile	Students have knowledge on geotechnics			[SU5] Assessment of ability to present the results of task			
Subject contents	The course broadens students understanding of basic regulations concerning on the landfills, its locations, closing procedures, recultivating technics. Student become acquainted with geosynthetics used on landfills, sealing of the construction, leaking protection, systems for landfill degassing and monitoring.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	presentation		60.0%		100.0%		
Recommended reading	Basic literature		Council Directive 1999/31/EC of 26 April 1999 on the landfill of wastes. Official Journal L182, 16/07/1999				

	Supplementary literature	1. Sharma H.D., Reddy K.R. Geoenvironmental Engineering, John Wiley and Son  (2004),EC7 GEOTECHNICAL DESIGN
	eResources addresses	Adresy na platformie eNauzanie:
Example issues/ example questions/ tasks being completed	basic regulations concerning on the landfills, its locations, geosynthetics used on landfills, sealing of the construction, leaking protection , system for leachate drainage, systems for landfill degassing and monitoring, recultivation processes.	
Work placement	Not applicable	