



## Subject card

Subject name and code	Hydraulic work placement and hydrochemical practice, PG_00043621						
Field of study	Environmental Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject	2021/2022				
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	2	Language of instruction	Polish				
Semester of study	4	ECTS credits	3.0				
Learning profile	general academic profile	Assessment form	assessment				
Conducting unit	Department of Environmental Engineering Technology -> Faculty of Civil and Environmental Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Katarzyna Jankowska					
	Teachers	dr hab. Katarzyna Jankowska dr inż. Natalia Gietka mgr inż. Emilia Bączkowska					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	4.0	0.0	0.0	26.0	0.0	30
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie:						
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	8.0	38.0	76		
Subject objectives	The combination of theoretical and practical knowledge in the field of hydrology, meteorology, geology, chemistry and biology to analyze environmental engineering problems.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U08] can use properly selected methods and devices of hydraulics and hydrology, enabling determination of basic quantities characterizing the flow of water in open channels and rivers, pipelines and flow objects of environmental engineering		[SU1] Assessment of task fulfilment
	[K6_U09] is able to use well-chosen methods and measuring devices that enable determination of basic parameters of the water treatment process and wastewater treatment; can perform simple laboratory tests leading to the assessment of water quality, pollutant load in sewage		[SU1] Assessment of task fulfilment
	[K6_W05] knows the theoretical basis of hydromechanics and its practical models, necessary to solve technical problems in the field of environmental engineering (sanitary engineering, water melioration, water management and flood protection, pollution spread)		[SW1] Assessment of factual knowledge
	[K6_W15] knows and understands the methods of measuring basic quantities characteristic for fluid mechanics and hydraulics, hydrology; knows the calculation methods and IT tools necessary to analyze the results of laboratory and field work		[SW1] Assessment of factual knowledge
	[K6_W04] possesses elementary knowledge in the field of land mechanics, ground science, land reclamation and geotechnics; has basic knowledge about the composition of air, water and soil, environmental pollution and processes responsible for their formation and ways to reduce them, knows the principles and organization of sustainable water management		[SW3] Assessment of knowledge contained in written work and projects
Subject contents	Students carry out field and laboratory research in a group of 12 people, on the basis of which they create a project that they later present.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	presentation	20.0%	20.0%
	project execution	80.0%	80.0%
Recommended reading	Basic literature	Teaching materials from lectures	
	Supplementary literature	Literature in the field of hydrology, meteorology, geology, chemistry and biology.	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		