



Subject card

Subject name and code	, PG_00059980						
Field of study	Environmental Engineering						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			4.0		
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. inż. Aneta Łuczkiwicz					
	Teachers	dr hab. inż. Aneta Łuczkiwicz dr hab. Katarzyna Jankowska					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	30.0	0.0	0.0	60
	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	60		5.0		38.0	103
Subject objectives	The subject concerns aspects of public health (including quality of life) that are determined by biological, chemical and physical environmental factors; it also covers the assessment, elimination and prevention of factors in the environment that may have a negative impact on the current and future generations.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	K7_W07	The student has in-depth, structured, theoretically based knowledge of municipal management, including water and wastewater treatment as well as sewage sludge processing.	[SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge
	K7_U11	When formulating and solving design or research tasks, the student is able to integrate knowledge from the environmental engineering, supported by economic and legal aspects.	[SU5] Assessment of ability to present the results of task [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
	K7_U04	The student is able to prepare and present a presentation of carried experiment or research task; Student is able to discuss a presented results.	[SU5] Assessment of ability to present the results of task [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
K7_U07	The student is able to plan and conduct the laboratory/field tests, leading to the assessment of the solutions implemented in environmental engineering	[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment	
Subject contents	<p>Lectures:</p> <p>Discussion of contemporary threats to public health posed by biological and chemical agents. Tracking environmental pollutants figuring out where and how people are exposed. Laws and policies to reduce different types of pollution in terms of prevention of serious health problems. Analysis of emissions of antropogenic substances in terms of occurrence of environmentally caused diseases. Analysis of the possible mitigation of above-mentioned emissions. Analysis of the popularization of the knowledge in the field of environmental health and the development of positive pro-ecological attitudes in community.</p> <p>Laboratory classes:</p> <p>Analysis of microbiological contamination of the environment. Analysis of chemical factors shaping the microbiological quality of the environment in the context of toxicological and epidemiological threats. Climate change and resistance of bacterial strains to environmental factors in terms of biodiversity loss and the occurrence of infectious diseases.</p>		
Prerequisites and co-requisites	Podstawy zagadnień z biologii, chemii i inżynierii środowiska		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	laboratory - presentation	40.0%	40.0%
	lecture - test	60.0%	60.0%
Recommended reading	Basic literature	Centers for Disease Control and Prevention: https://www.cdc.gov/nceh/tracking/tracking-intro.html	
		WHO: https://www.who.int/data/gho/data/themes/public-health-and-environment	
		Environmental Health - Healthy People 2030: https://health.gov/healthypeople/objectives-and-data/browse-objectives/environmental-health	
	Supplementary literature	-	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			

Work placement	Not applicable
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