



## Subject card

Subject name and code	Environmental Management and Monitoring , PG_00060045						
Field of study	Environmental Engineering						
Date of commencement of studies	February 2025		Academic year of realisation of subject		2024/2025		
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	1		ECTS credits		2.0		
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		prof. dr hab. inż. Magdalena Gajewska				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	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		19.0	54
Subject objectives	Getting to Know the roles and methods and principles of environmental management						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_U01] can obtain information from literature, databases and other sources; can integrate the obtained information, interpret and critically evaluate them, draw conclusions, and formulate and comprehesively justify the opinions		Can obtain information from literature, databases, and other sources; able to integrate the information obtained, to make their interpretation and critical evaluation, as well as draw conclusions and formulate and fully justify opinions		[SU1] Assessment of task fulfilment		
	[K7_W08] has knowledge necessary to understand the social, economic, legal and other non-technical determinants of engineering activities and their incorporation in engineering practice		Student has the knowledge necessary to understand the social, economic, legal and other non-technical considerations engineering activities and take them into account in engineering practice		[SW1] Assessment of factual knowledge		
	[K7_U08] is able to assess risks in the implementation of engineering projects and implement appropriate safety rules		Is able to assess threats in the mplementation of engineering projects and implement the appropriate security principles		[SU2] Assessment of ability to analyse information		
	K7_W03		Has in-depth, structured and theoretically based knowledge related to measurements, management and monitoring of the environment		[SW3] Assessment of knowledge contained in written work and projects		
	K7_U03		Can prepare detailed documentation of the results of an experiment, design or research task		[SU1] Assessment of task fulfilment		

Subject contents	Evolution of methods for environmental management, the principle of sustainable development, Life cycle assesment (LCA), best available techniques and practices (BAT and BAP), EU Directives and polish Regulations. Principles, goals and methods of NBS for enviromental protection .		
	Development of an extended concept for the project of using natural methods in environmental protection. The task is to inventory the current state of problem identification and develop an expanded concept of river revitalization for the selected purpose. The study contains: display and a board		
Prerequisites and co-requisites	SSPK15, SSPK18, SSPK30, SSP41A, SSP41B, SSPK42		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	assesment of presentation and paper	60.0%	100.0%
Recommended reading	Basic literature		Cahill L.B.: Environmental Audits. Government Institutes Inc., Rockville, Maryland,USA.  Nowe horyzonty i wyzwania w analityce i monitoringu środowiska. Red.: Namieśnik J., Chrzanowski W., Szpinek P.: Centrum Doskonałości Analityki i Monitoringu Środowiska, Gdańsk 2003.  von Zharen W.M.: ISO 14000 Understanding the Environmental Standards. Government Institutes Inc., Rockville, Maryland, USA.  dedicated publications and design rules
	Supplementary literature	directive and standards , reports on environment and the sate of the art, Publications and design guidelines	
	eResources addresses	Adresy na platformie eNauczanie:	
	Example issues/ example questions/ tasks being completed	Rules for preparing SWOT analysis,  principles of rainwater management in urbanized areas, taking into account the adaptation of cities to climate change  Publications and design guidelines of NBS	
Work placement	Not applicable		

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