



Subject card

Subject name and code	, PG_00061712						
Field of study	Environmental Engineering						
Date of commencement of studies	October 2023	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group			Obligatory subject group in the field of study		
Mode of study	Part-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	1	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		prof. dr hab. inż. Magdalena Gajewska				
	Teachers		dr inż. Grażyna Gałęzowska prof. dr hab. inż. Magdalena Gajewska				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	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	3.0		70.0	103	
Subject objectives	the aim of the course is to familiarize with the challenges resulting from climate change and methods and technologies for creating cities resistant to climate change						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K7_U02	is able to work individually and in a team (performing various functions, including managerial); is able to assess the time-consuming nature of the task			[SU1] Assessment of task fulfilment		
	[K7_W02] has broadened and well-ordered knowledge of the current law on construction, water, environmental protection and planning and spatial planning.	has extensive and structured knowledge of the applicable provisions of the construction law, water law, environmental protection as well as climate planning and development			[SW3] Assessment of knowledge contained in written work and projects		
	K7_U04	is able to prepare and present a presentation on the implementation of an experiment, project or research task and lead a discussion on the presented presentation			[SU5] Assessment of ability to present the results of task		
	K7_U03	Can prepare detailed documentation of the results of an experiment, design or research task			[SU1] Assessment of task fulfilment		
[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 comprehensively justify the opinions	is able to obtain information from literature, databases and other sources; is able to integrate the obtained information, interpret and critically evaluate it, draw conclusions and formulate and comprehensively justify opinions			[SU1] Assessment of task fulfilment			

Subject contents	Ecosystem functions, definition of resilience, adaptation and mitigation and meaning. Resilient cities and spatial planning. Urban Climate Change Adaptation Plan - what is it about and how to prepare it? BGD - as guides, NBS, Ecosystem services - the importance of greenery and green retention, Mitigation activities - transport, buildings, production, and adaptation - transport, buildings, production, RES and circular economy. Energy, water and food		
Prerequisites and co-requisites	urban watershed hydrology, environmental chemistry, climatology		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	group project	55.0%	100.0%
Recommended reading	Basic literature	Nauka o Klimacie  Świat na rozdrożu	
	Supplementary literature	EU regulations and directives, IPCC reports	
	eResources addresses	Adresy na platformie eNauczanie: Inżynieria Miast - sem. I MSU niestacjonarne 2023/24 - Moodle ID: 34280 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34280">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34280</a>	
Example issues/ example questions/ tasks being completed	Tasks of cities resistant to climate change  scenarios principles of adaptation and mitigation to climate change  importance of water, food and energy in building climate-resilient cities		
Work placement	Not applicable		