

1.	<b>Field of study</b>	<b>Water Management - Aquamatics</b>
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2025/2026 (winter term)
4.	Level of qualifications/degree	first-cycle studies (in engineering)
5.	Degree profile	general academic
6.	Mode of study	Full-time

7.	<b>General information about the module</b>	
<b>Module name</b>		<b>Water in the city</b>
Module code		W2-GW-AQ-S1-033
Number of the ECTS credits		4
Language of instruction		Polish
Purpose and description of the content of education		Moduł pozwala zrozumieć jak miasta są zaopatrywane w wodę do picia i na potrzeby gospodarcze, co się dzieje z wodą wykorzystaną i jakie są sposoby zwiększenia zasobów wodnych wykorzystywanych w mieście np. poprzez retencję deszczówki. W module szczególną uwagę zwraca się na oszczędzanie zasobów wód pitnych poprzez ich wielokrotne wykorzystywanie, sposoby zmniejszenia oddziaływania na środowisko zarówno na etapie poboru jak i zrzutu wód wykorzystanych.
List of modules that must be completed before starting this module (if necessary)		[W2-GW-AQ-S1-015] Water status and resources monitoring [W2-GW-AQ-S1-014] Basics of ecology [W2-GW-AQ-S1-008] Basics of hydrobiology [W2-GW-AQ-S1-010] Basic of hydrogeology [W2-GW-AQ-S1-009] Basics of hydrology [W2-GW-AQ-S1-025] Basics of hydrotechnics [W2-GW-AQ-S1-016] Basics of meteorology and climatology [W2-GW-AQ-S1-024] Basics of environmental protection [W2-GW-AQ-S1-020] Basics of water reclamation and renaturalisation

8.	Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competenc	
W2-GW-AQ-S1-033_1	Zna podstawowe zasady budowy sieci wodociągowej i kanalizacyjnej (komunalnej i deszczowej).	GW-AQ1_W03	4	
		GW-AQ1_W05	4	
W2-GW-AQ-S1-033_2	Rozumie przyczyny powodzi miejskich i potrafi w podstawowy sposób proponować ograniczenie ich skutków.	GW-AQ1_U04	4	
		GW-AQ1_W01	4	
		GW-AQ1_W05	4	
W2-GW-AQ-S1-033_3	Rozumie konieczność tworzenia błękitno - zielonej infrastruktury w mieście.	GW-AQ1_W01	3	
		GW-AQ1_W02	3	
		GW-AQ1_W04	3	
		GW-AQ1_W05	3	

W2-GW-AQ-S1-033_4	Zna podstawowe sposoby adaptacji do zmian klimatu w mieście.	GW-AQ1_W04	2
		GW-AQ1_W05	2

9. Methods of conducting classes		
Code	Category	Name (description)
b01	Problem-solving methods	Problem-based lecture <i>an analysis of a selected scientific or practical problem accompanied by its assessment and an attempt to provide a solution to the issues presented in the lecture as well as the indication of the consequences of the proposed solution</i>
b07	Problem-solving methods	Activating methods: a case study <i>a comprehensive description of a phenomenon connected with the selected discipline; reflecting the reality, presenting the 'what', 'where' and 'how' of the phenomenon, i.e., all of its key aspects to be discussed in class; used as a reproduction, presentation, discussion or diagnosis of factors that shape the phenomenon or interact with it; an in-depth qualitative analysis and evaluation of a selected phenomenon</i>
b10	Problem-solving methods	SWOT analysis <i>a method of analyzing a phenomenon/action/work of an institution, employed to organize information and solve problems; applied in strategic planning, project implementation or solving a business or organizational problem; a universal tool to be used in the initial stage of a strategic analysis which involves sorting information about a problem into four categories: strengths and weaknesses, opportunities and threats; SWOT analysis makes it possible to determine the factors in favour of a project and its chances for success, as well as eliminating or reducing negative factors and threats to the project at the stage of early diagnosis</i>
e08	Practical methods	Practice-as-research <i>also conducted as fieldwork; an activity aimed at confronting the acquired theory with practice through its practical application; students situate themselves in the reality they observe, study and transform through the prism of the theory; the method of practical classes is dominated by the application of knowledge to solving practical tasks</i>

10. Forms of teaching					
Code	Name	Number of hours	Assessment of the learning outcomes of the module	Learning outcomes of the module	Methods of conducting classes
W2-GW-AQ_033 fs_1	lecture	15	course work	W2-GW-AQ-S1-033_1, W2-GW-AQ-S1-033_4	b01
W2-GW-AQ_033 fs_2	practical classes	30	course work	W2-GW-AQ-S1-033_2, W2-GW-AQ-S1-033_3	b07, b10, e08

11. The student's work, apart from participation in classes, includes in particular:			
Code	Category	Name (description)	Is it part of the BUNA?
a02	Preparation for classes	Literature reading / analysis of source materials <i>reading the literature indicated in the syllabus; reviewing, organizing, analyzing and selecting source materials to be used in class</i>	No
a04	Preparation for classes	Consulting materials complementary to those indicated in the syllabus <i>agreeing on materials complementary to those indicated in the syllabus, supporting the implementation of tasks resulting from or necessary for class participation</i>	No
c02	Preparation for verification of learning outcomes	Studying the literature used in and the materials produced in class <i>exploring the studied content, inquiring, considering, assimilating, interpreting it, or organizing</i>	No

		<i>knowledge obtained from the literature, documentation, instructions, scenarios, etc., used in class as well as from the notes or other materials/artifacts made in class</i>	
c03	Preparation for verification of learning outcomes	Implementation of an individual or group assignment necessary for course/phase/ examination completion <i>a set of activities aimed at performing an assigned task, to be executed out of class, as an obligatory phase/element of the verification of the learning outcomes assigned to the course</i>	No

Information on the details of the module implementation in a given academic year can be found in the syllabus available in the USOS system: <https://usosweb.us.edu.pl>.