

1.	Field of study	Water Management - Aquamatics
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.	General information about the module	
Module name		Basics of hydrotechnics
Module code		W2-GW-AQ-S1-025
Number of the ECTS credits		2
Language of instruction		Polish
Purpose and description of the content of education		W ramach modułu student poznaje rodzaje budowli hydrotechnicznych oraz zasady projektowania i praktycznego wykorzystania budowli hydrotechnicznych. Poznałe informacje na temat potrzebnej dokumentacji niezbędnej do wykonania budowli hydrotechnicznej.
List of modules that must be completed before starting this module (if necessary)		[W2-GW-AQ-S1-011] Basics of engineering geology [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-S1-046] Basics of hydrology - field classes

8.	Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competenc (scale 1-5)	
W2-GW-AQ-S1-025 _1	Zna podstawy projektowania budowli hydrotechnicznych.	GW-AQ1_W01	4	
		GW-AQ1_W04	4	
W2-GW-AQ-S1-025 _2	Zna podstawy praktycznego zastosowania budowli hydrotechnicznych.	GW-AQ1_U06	4	
		GW-AQ1_W01	4	
		GW-AQ1_W04	4	
		GW-AQ1_W08	4	
W2-GW-AQ-S1-025 _3	Posiada podstawową wiedzę i umiejętności projektowania prostych budowli hydrotechnicznych.	GW-AQ1_U05	3	
		GW-AQ1_U06	3	
		GW-AQ1_U07	3	
		GW-AQ1_W01	3	
		GW-AQ1_W04	3	
		GW-AQ1_W08	3	
W2-GW-AQ-S1-025 _4	Wykazuje umiejętność krytycznej analizy zastosowania rozwiązań w budowlach hydrotechnicznych.	GW-AQ1_U07	2	

		GW-AQ1_W01	2
		GW-AQ1_W04	2
		GW-AQ1_W08	2
W2-GW-AQ-S1-025_5	Wykazuje umiejętność krytycznej analizy zastosowania rozwiązań w budowlach hydrotechnicznych związanych z budową budowli hydrotechnicznych.	GW-AQ1_K02	2
		GW-AQ1_U07	2
		GW-AQ1_W01	2
		GW-AQ1_W04	2
		GW-AQ1_W08	2

9. Methods of conducting classes		
Code	Category	Name (description)
a03	Lecture methods / expository methods	Description <i>a description of objects, phenomena, processes or people; it involves specifying the structure and characteristic features of the object, phenomenon, or process being described; it is usually accompanied by a demonstration of the described object or by its models, drawings, tables, charts, etc.; a description may take the form of an explanation, classification, justification or comparison</i>
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>
e04	Practical methods	Project scheduling <i>proceeding according to the steps proposed within a specific methodology for the completion of a task; e.g., identifying project objectives, determining the result, identifying strengths, limitations, opportunities and threats (SWOT), establishing a schedule of activities, assessing resources, establishing an implementation plan; the initial diagnosis; the reassessment of assumptions; the process of preparing the practical implementation of a project</i>
e06	Practical methods	Observation <i>also conducted as fieldwork; a method of watching phenomena, objects or people in a systematic/planned way in order to gain knowledge about them; perceptual separation of elements of a model action as an element of learning through imitation; a complex system of cognition based on sensory experiences</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_025 fs _1	lecture	15	course work	W2-GW-AQ-S1-025 _1, W2-GW-AQ-S1-025 _2, W2-GW-AQ-S1-025 _3	a03, b01, e04
W2-GW-AQ_025 fs _2	field practice	15	course work	W2-GW-AQ-S1-025 _3, W2-GW-AQ-S1-025 _4, W2-GW-AQ-S1-025 _5	e04, e06

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
a03	Preparation for classes	Developing practical skills <i>activities involving the repetition, refinement and consolidation of practical skills, including those developed during previous classes or new skills necessary for the implementation of subsequent elements of the curriculum (as preparation 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 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>		No
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
e01	Activities complementary to the classes	Undertaking, on one's own initiative and individually, activities aimed at expanding the scope or depth of the teaching content, also beyond the walls of the University <i>a set of activities undertaken independently and on the student's own initiative, aimed at expanding the depth and scope of knowledge and skills, their revision and repetition, retention or verification, also activities carried outside the university, e.g., in a culture promoting or educational institution, a laboratory, in the open air, etc.; also self-education</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>.