

1.	Field of study	Aquamatics - Interdisciplinary Management of Water Environments
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2023/2024 (winter term), 2024/2025 (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 water management 2
Module code	W2-AQ-S1-041
Number of the ECTS credits	2
Language of instruction	Polish
Purpose and description of the content of education	Celem modułu jest zapoznanie studenta z następującymi zagadnieniami: źródła informacji hydrologicznej, statystycznej z zakresu gospodarowania wodą, o jakości wody, podstawowe zasady i zadania gospodarki wodnej, zagadnienia związane ze zjawiskami ekstremalnymi (susze, powódzie), system organizacyjny gospodarki wodnej w Polsce, aktualne i prognozowane problemy z zakresu gospodarowania wodą. W trakcie ćwiczeń terenowych student zapozna się z funkcjonowaniem elementów gospodarki wodnej.
List of modules that must be completed before starting this module (if necessary)	[W2-AQ-S1-040] Basics of water management 1

8. Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competenc (scale 1-5)
W2-AQ-S1-041_1	Rozumie podstawowe zjawiska i procesy hydrologiczne oraz posiada podstawową wiedzę z zakresu gospodarki wodnej.	AQ1_W01 AQ1_W02	4 4
W2-AQ-S1-041_2	Zna, analizuje i prognozuje funkcjonowanie gospodarki wodnej (zaopatrzenie w wodę, odprowadzanie ścieków, gospodarowanie wodą w okresie wezbrań i powodzi oraz w okresie suszy, podstawy regulacji rzek i potoków, podstawy zarządzania zasobami wodnymi).	AQ1_K02 AQ1_U01 AQ1_U02 AQ1_U10 AQ1_W01 AQ1_W04 AQ1_W05	3 1 3 3 3 3 3
W2-AQ-S1-041_3	Posiada podstawową wiedzę i umiejętności w zakresie przygotowywania analiz na potrzeby dokumentacji hydrologicznych.	AQ1_K02 AQ1_U01 AQ1_U02 AQ1_W01	3 3 3 3

		AQ1_W02	3
		AQ1_W04	3
		AQ1_W05	3
W2-AQ-S1-041_4	Ma podstawową wiedzę na temat systemu gospodarki wodnej w Polsce.	AQ1_U08	2
		AQ1_U10	2
		AQ1_W05	2
		AQ1_W07	2
W2-AQ-S1-041_5	Potrafi wykonać pomiary jakościowo i ilościowe wód powierzchniowych oraz zinterpretować wyniki.	AQ1_U10	2
		AQ1_W08	2

9. Methods of conducting classes		
Code	Category	Name (description)
a01	Lecture methods / expository methods	Formal lecture/ course-related lecture <i>a systematic course of study involving a synthetic presentation of an academic discipline; its implementation assumes a passive reception of the information provided</i>
b04	Problem-solving methods	Activating method – discussion / debate <i>an exchange of views supported by substantive arguments leading to a clash of different views, a compromise or the identification of common positions; it proceeds according to previously agreed-upon rules regarding the time, manner and turn-taking as well as the principles of civil discourse; a discussion is not a competition but aims at finding the best solutions or presenting different points of view; its varieties include brainstorming, Oxford-style debate, panel discussion, decision tree, conference discussion; a debate is an orderly dispute between supporters and opponents of a viewpoint, usually specialists in the field or pre-selected representatives of a group dealing with a common problem</i>
e01	Practical methods	Laboratory exercise / experiment <i>[also conducted as fieldwork] a method of practical application of knowledge; implemented in three stages: the recognition of a problem induced by the task content, the formulation of the problem and the attempt to solve it accompanied by the assessment of the effects; the goal is to acquire skills, abilities and habits, and to consolidate the acquired knowledge so that it becomes operational; the laboratory method assumes greater independence of learners than carrying out an experiment</i>
e05	Practical methods	Internship <i>including professional and individual training; gaining skills and experience in real-life conditions, e.g., in the environment, institution or workplace the student is preparing for by following a specific study programme; training in real working conditions</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>
e07	Practical methods	Simulation <i>an indirect method; imitating reality in order to gain experience approximating a real one; recreating a real-world situation so that its participant can acquire an experience close to the authentic one; work on "replacement" material</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-AQ-S1- 041_fs_3	practical classes	20	course work	W2-AQ-S1-041_1, W2-AQ-S1-041_2, W2-AQ-S1-041_3, W2-AQ-S1-041_4, W2-AQ-S1-041_5	b04, e06, e07
W2-AQ-S1-041_fs_1	field practice	10	course work	W2-AQ-S1-041_5	e01, e05, e06
W2-AQ-S1-041_fs_2	lecture	10	exam	W2-AQ-S1-041_1, W2-AQ-S1-041_2, W2-AQ-S1-041_3	a01

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
a05	Preparation for classes	Production/preparation of tools, materials or documentation necessary for class participation <i>developing, preparing and assessing the usefulness of tools and materials (e.g. aids, scenarios, research tools, equipment, etc.) to be employed in class or as an aid when preparing for classes</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

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>.