

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 hydrobiology
Module code		W2-GW-AQ-S1-008
Number of the ECTS credits		4
Language of instruction		Polish
Purpose and description of the content of education		Celem modułu jest zapoznanie studenta z podstawowymi zagadnieniami hydrobiologii. Moduł przedstawia podstawowe właściwości wód oraz cykle pierwiastków biogennych w środowiskach wodnych. Prezentuje biotyczne i abiotyczne części ekosystemów wodnych oraz ich podstawowe interakcje. Zapoznaje głównymi formacjami ekologicznymi oraz ich przystosowaniami do życia w wodzie.
List of modules that must be completed before starting this module (if necessary)		not applicable

8.	Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competenc (scale 1-5)	
W2-GW-AQ-S1-008_1	Posiada podstawową wiedzę na temat właściwości wód oraz krążenia podstawowych pierwiastków w ekosystemach wodnych.	GW-AQ1_W02	3	
W2-GW-AQ-S1-008_2	Zna podstawowe czynniki kształtujące biocenozy wodne oraz rozumie ich wpływ na hydrobionty.	GW-AQ1_W02	3	
W2-GW-AQ-S1-008_3	Ma podstawową wiedzę na temat funkcjonowania ekosystemów wodnych i rozumie występujące w nich zależności.	GW-AQ1_W02	3	
W2-GW-AQ-S1-008_4	Rozpoznaje podstawowe organizmy wodne korzystając z kluczy do oznaczania	GW-AQ1_U03	3	
W2-GW-AQ-S1-008_5	Stosuje metody badań hydrobiologicznych.			
W2-GW-AQ-S1-008_6	Propaguje postawy etyczne w odniesieniu do ekosystemów wodnych.	GW-AQ1_K03	3	

9.	Methods of conducting classes		
Code	Category	Name (description)	
a01	Lecture methods / expository methods	Formal lecture/ course-related lecture	

		a systematic course of study involving a synthetic presentation of an academic discipline; its implementation assumes a passive reception of the information provided
c06	Demonstration methods	Demonstration-imitation a presentation of a model way of performing specific activities accompanied by a commentary; it aims at triggering imitation activities in an individual or in a group of participants observing the activities of the person teaching the course until the right habit is formed through regular exercise; the demonstration-imitation method is combined with a physical practice of activities/behaviours
e01	Practical methods	Laboratory exercise / experiment [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
e06	Practical methods	Observation 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

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-008_fs_1	lecture	10	exam	W2-GW-AQ-S1-008_1, W2-GW-AQ-S1-008_2, W2-GW-AQ-S1-008_3	a01
W2-GW-AQ-008_fs_2	laboratory classes	15	course work	W2-GW-AQ-S1-008_4, W2-GW-AQ-S1-008_5, W2-GW-AQ-S1-008_6	c06, e01, 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 reading the literature indicated in the syllabus; reviewing, organizing, analyzing and selecting source materials to be used in class		No
c01	Preparation for verification of learning outcomes	Determining the stages of task implementation contributing to the verification of learning outcomes devising a task implementation strategy embracing the division of content, the range of activities, implementation time and/or the method(s) of obtaining the necessary materials and tools, etc.		No
c03	Preparation for verification of learning outcomes	Implementation of an individual or group assignment necessary for course/phase/ examination completion 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		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>.