

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 ichthyology
Module code		W2-AQ-S1-034
Number of the ECTS credits		2
Language of instruction		Polish
Purpose and description of the content of education		The effects of education in the field of ichthyology implemented during lectures and field classes are identified with basic knowledge allowing to recognize fish species and learn the basics of their biology. Of particular importance in education in the field of ichthyology is the recognition and correct explanation of mutual relations and connections between the abiotic features of subsurface waters and the species composition of fish.
List of modules that must be completed before starting this module (if necessary)		[W2-AQ-S1-012] Basics of chemistry [W2-AQ-S1-014] Basics of ecology [W2-AQ-S1-008] Basics of hydrobiology [W2-AQ-S1-009] Basics of hydrology

8.	Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competenc (scale 1-5)	
W2-AQ-S1-034 _1	Zna podstawowe metody badawcze w ichtiologii, potrafi korzystać ze źródeł informacji o ichtiofaunie.	AQ1_W01	4	
		AQ1_W05	4	
W2-AQ-S1-034 _2	Rozumie podstawowe pojęcia związane z wodami słodkowodnymi i morskimi będącymi środowiskiem życia ryb.	AQ1_U04	4	
		AQ1_W01	4	
		AQ1_W05	4	
W2-AQ-S1-034 _3	Rozumie funkcjonowanie ekosystemów wodnych jako środowiska życia ryb w aspekcie lokalnym, regionalnym i globalnym.	AQ1_W01	3	
		AQ1_W02	3	
		AQ1_W04	3	
		AQ1_W05	3	
W2-AQ-S1-034 _4	Potrafi rozpoznawać gatunki ryb słodkowodnych oraz zna ich biologię.	AQ1_W04	2	
		AQ1_W05	2	
W2-AQ-S1-034 _5	Potrafi wykonać podstawowe pomiary cech biometrycznych ryb i dokonać ich interpretacji.	AQ1_U06	2	
		AQ1_U10	2	

		AQ1_W01	2
		AQ1_W02	2
		AQ1_W04	2
		AQ1_W05	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>
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>
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>
c06	Demonstration methods	Demonstration-imitation <i>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</i>
d03	Programmed learning methods	Working with another teaching tool <i>e.g. using websites in any way or according to the rules set by the teacher; or making use of other subject-specific tools</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-AQS1- 034 fs 1	lecture	10	course work	W2-AQ-S1-034 _1, W2-AQ-S1-034 _2, W2-AQ-S1-034 _3	a01, a03, b07
W2-AQS1- 034 fs 2	field practice	15	course work	W2-AQ-S1-034 _4, W2-AQ-S1-034 _5	c06, d03, e06

11. The student's work, apart from participation in classes, includes in particular:				
Code	Category	Name (description)		Is it part of the BUNA?
a01	Preparation for classes	Search for materials and review activities necessary for class participation <i>reviewing literature, documentation, tools and materials as well as the specifics of the syllabus and the range of activities indicated in it as required for full participation in classes</i>		No
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
d03	Consulting the results of the verification of learning outcomes	Review of internship documentation <i>an analysis of the portfolio of documentation obtained during internship, including professional internship, and other practical classes and studio sessions, as well as the documentation developed in order to obtain credit for such classes; verification of the description, necessary attachments, opinions and grades before submitting the portfolio for acceptance</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>.