

Subject card

Subject name and code	Hydrobotany, PG_00207338						
Field of study	Biology						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2026/2027		
Education level	Master's studies		Subject group		Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		1.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Laboratory of Freshwater Ecology -> Department of Plant Ecology -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Krzysztof Banaś, prof. UG				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	15.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	15		2.0		8.0	25
Subject objectives	Understanding of phenomena and processes in aquatic biocoenoses and ecosystems, and the relationship between aquatic organisms and their habitat. Knowledge of the peculiarities and role of the most important groups of plant organisms in aquatic ecosystems.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLMU2_W05] has an in-depth knowledge and understanding of the dynamic development of the biological sciences and is well versed in new research trends and disciplines	identifies and explains the causes of anthropogenic transformation of aquatic ecosystems	[SW2] presentation/project/paper/report [SW3] text preparation/written work
	[BIOLMU2_W04] has in-depth knowledge of the chosen specialization in the biological sciences	understands and describes the phenomena and processes that occur in aquatic ecosystems at different levels of organization	[SW2] presentation/project/paper/report [SW3] text preparation/written work
	[BIOLMU2_W01] has a deep knowledge and understanding of natural phenomena and processes at various levels of complexity	characterizes the specifics and role of the main groups of aquatic organisms	[SW2] presentation/project/paper/report [SW3] text preparation/written work
	[BIOLMU2_U07] is able to critically compare biological information from various sources and draw justified conclusions on this basis	predicts trends in aquatic ecosystems based on information about the specific characteristics of the aquatic environment and biocoenoses, as well as the type and intensity of anthropogenic impacts	[SU1] oral statement/conversation/discussion [SU3] text preparation/written work
	[BIOLMU2_U03] is able to critically analyze and select biological information, especially from electronic sources	demonstrates the ability to critically analyze and select information on the structure and functioning of aquatic ecosystems	[SU1] oral statement/conversation/discussion [SU3] text preparation/written work
	[BIOLMU2_K07] is ready to systematically update biological knowledge and information on its practical applications	systematically updates knowledge about the natural aquatic environment	[SK3] text preparation/written work [SK8] observation of student's independent or team work
Subject contents	Physical and chemical properties of the aquatic environment. Influence of physical, chemical and anthropogenic factors on the structure of aquatic phytocenoses. Review of basic groups of aquatic plants and their functions in aquatic ecosystems. Impact of anthropogenic transformation of aquatic ecosystems on the structure of underwater vegetation. Protection of aquatic plants and aquatic ecosystems.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		51.0%	100.0%
Recommended reading	Basic literature	nie dotyczy	
	Supplementary literature	nie dotyczy	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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