

Subject card

Subject name and code	Hydroecology - lecture, PG_00201225						
Field of study	Aquaculture – Business And Technology						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2026/2027		
Education level	Bachelor's studies		Subject group		Obligatory subject group 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	1		ECTS credits		2.0		
Learning profile	practical		Assessment form		exam		
Conducting unit	Department of Marine Ecosystems Functioning -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Aleksandra Zgrundo				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	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	30		1.0		19.0	50
Subject objectives	Introduction to ecology as a scientific discipline utilizing specialized terminology and research methodologies. The course presumes that, in addition to mastering fundamental concepts and techniques pertinent to the investigation of ecological systems, the student will grasp the significance of abiotic and biotic factors, as well as the processes that shape the structure and function of ecosystems.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[AKWAL3_W01] has an advanced understanding of the links between achievements in selected fields of science and natural science disciplines, and their potential applications in socio-economic life		Students understand and correctly describe the basic chemical / biological / physical processes and phenomena, analyze them in relation to the aquatic environment Students understand and understands chemical, biological and physical processes and phenomena, identifies them, analyzes their course in relation to the aquatic environment and is aware of the connections between various natural disciplines.		[SW4] test/exam - oral or written		
Subject contents	1. Ecology - aim and object of study, basic concepts: habitat, environment, ecological niches, environmental factors and their impact on organisms, the concept of limiting factor with regard to Liebig's law of the minimum and ecological tolerance, ecological spectra, life forms, adaptations. 2. Methodology of basic ecological studies. 3. Structure, dynamics and functioning of populations, biocoenoses and ecosystems. The phenomenon of homeostasis and ecological succession. 4. Introduction to evolutionary ecology. 5. Biodiversity (definitions, threats, legal regulations). 6. Contemporary threats to aquatic ecosystems. 7. Practical application of ecological theories in the formation of artificial systems.						

Prerequisites and co-requisites	Basic information in the field of biology and hydrobiology (high school level)		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Exam	51.0%	100.0%
Recommended reading	Basic literature	1. Kingsolver R.W. 2006. Ecology on campus: lab manual. San Francisco [etc.], Pearson-Benjamin Cummings 2. Smith T.M., Smith R.L. 2014. Elements of Ecology. San Francisco [etc.], Benjamin Cummings	
	Supplementary literature	1. Krebs Ch.J. 2011. Ekologia. Eksperymentalna analiza rozmieszczenia i liczebności. Wydawnictwo Naukowe PWN, Warszawa	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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