

Subject card

Subject name and code	Water Biology - lecture, PG_00054166						
Field of study	Water Management and Protection of Water Resources						
Date of commencement of studies	October 2025		Academic year of realisation of subject			2025/2026	
Education level	Bachelor's studies		Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study Subject group related to practical vocational preparation	
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				
Conducting unit	Department of Marine Biology and Biotechnology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Justyna Kobos				
	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		10.0		15.0	55
Subject objectives	To convey the basic concepts and terms of aquatic biology. To learn about the specific ecological characteristics of the aquatic environment and the adaptations of living organisms to this environment.						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[GWOZWL3-W01] in advanced basic biological, physical and chemical processes and phenomena, as well as analyzes their mutual relations and course in relation to natural environment and socio-ecological systems		knows and understands to an advanced degree the basic biological processes and phenomena, as well as analyzes their interrelationships and course in relation to the natural environment and social-ecological systems			[SW4] test/exam - oral or written	
Subject contents	1. Biology and ecology of aquatic organisms (nutrition, reproduction, osmoregulation) 2. Characteristics of basic ecological formations (plankton, benthos, nekton, neuston, pleuston) 3. Specifics of the conditions of life in water (physical, chemical, edaphic, biological parameters) 4. Characteristics of basic types of water bodies 5. Energy flow and circulation of matter in aquatic ecosystems 6. Productivity of aquatic ecosystems 7. Problems of modern hydrobiology: eutrophication, saprobification, acyidification 8. Comparison of the functioning of freshwater, brackish and marine ecosystems						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	exam	51.0%	100.0%
Recommended reading	Basic literature	Odum E., 1982, Podstawy ekologii, PWRiL, Warszawa Starmach K., Wróbel S., Pasternak K., 1976, Hydrobiologia. Limnologia, PWN, Warszawa Mikulski J. S., 1982, Biologia wód śródlądowych, PWN, Warszawa Pliński M., 1992, Hydrobiologia ogólna, skrypt Uniwersytetu Gdańskiego, Gdańsk	
	Supplementary literature	Kajak Z, Górniak A., 2019, Hydrobiologia. Limnologia, PWN, Warszawa Pliński M., 2008, Biologia organizmów morskich, wydawnictwo Uniwersytetu Gdańskiego, Gdańsk Thurman U., 1982, Zarys oceanologii, Wydawnictwo morskie, Gdańsk Podbielkowski Z., Tomaszewicz H., 1979, Zarys hydrobotaniki, PWN, Warszawa Starmach K., 1973, Wody śródlądowe. Zarys hydrobiologii, skrypt Uniwersytetu Jagiellońskiego, Kraków	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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