

Subject card

Subject name and code	Hydrobiology - lecture, PG_00103330						
Field of study	Oceanography						
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	
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			3.0	
Learning profile	academic		Assessment form			exam	
Conducting unit	Department of Marine Biology and Biotechnology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Waldemar Surosz				
	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		5.0		25.0	60
Subject objectives	Learning about the specific ecological characteristics of the aquatic environment and the associated biological adaptations of aquatic organisms						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	OCEANL3-W02		knows and understands the basic biological processes occurring in theaquatic environment, identifies and correctly describes basic phenomena hydrobiological and natural processes occurring in the marine environment			[SW4] test/exam - oral or written	
	OCEANL3-W01		to an advanced degree, knows and understands the terminology appropriate in the natural sciences, with particular emphasis on hydrobiological sciences necessary for understanding the basic phenomena and processes occurring in the aquatic environment			[SW4] test/exam - oral or written	
Subject contents	A.1. Specificity of conditions of life in water (physical, chemical, edaphic, biological parameters). A.2. Biology of aquatic organisms (buoyancy, osmoregulation and ionoregulation, respiration, nutrition, reproduction). A.3. Overview and characteristics of ecological formations: plankton, nekton, pleuston, neuston, benthos. A.4. Ecobiological characteristics of the aquatic environment in terms of basic types of reservoirs. A.5. Formation of ecological parameters in the littoral, sublittoral, benthal and pelagial. A.6. Basic data on the productivity of aquatic ecosystems. A.7. Problems of modern hydrobiology: eutrophication, acidification and saprobation.						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	egzam	51.0%	100.0%
Recommended reading	Basic literature	Pliński M., 1992, General Hydrobiology, ed. University of Gdansk, (and later editions) Odum E., 1982, Fundamentals of ecology, PWRiL, Warsaw, Poland. Żmudziński L., 1974, The animal world of the Baltic Sea, WSIP Wydawnictwa Szkolne i Pedagogiczne Starmach K., Wróbel., Pasternak K., 1976, Hydrobiology, Limnology, PWN, Warsaw Thurman U., 1982, Outline of oceanology, Wydawnictwo Morskie, Gdansk, Poland.	
	Supplementary literature	Chojnacki J., 1998, Basics of water ecology, Wyd. Akademii Rolniczej w Szczecinie, Szczecin Kajak Z., 1998, Hydrobiology - Limnology, Wyd. Nauk. PWN, Warsaw Mikulski J., 1982, Biology of inland waters, PWN, Warsaw Opuszyński K., 1979, Basics of fish biology, Edition: PWRiL Pliński M., 2008, Biology of marine organisms, University of Gdańsk, Gdańsk Podbielkowski Z., Tomaszewicz H., 1979, Outline of hydrobotany, PWN, Warszawa Polakowska M., 1961, Water plants Atlas, Państwowe Zakłady Wydawnictw Szkolnych Starmach K., 1973, Inland waters. Outline of hydrobiology, UJ script, Cracow Telesh I., Postel L., Heerkloss R., Mironova K., Skarlato, S. (2008). Zooplankton of the Open Baltic Sea: Atlasdansk.	
	eResources addresses		
	Example issues/ example questions/ tasks being completed		
Work placement	Not applicable		

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