University of Gdańsk

Subject card

Subject name and code	Hydrobiology, PG_00103627		
Field of study	Environmental Protection		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
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	2	ECTS credits	2.0
Learning profile	academic	Assessment form	
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr Justyna Kobos	
	Teachers	mgr Adam Makatun	

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	33.0	50

Subject objectives	The aim of the exercises conducted as part of this course is to learn about the functioning of aquatic ecosystems; to learn about aquatic flora and fauna with particular emphasis on the ways in which organisms adapt to various conditions in water. To discuss the influence of natural and anthropogenic factors on the life of aquatic organisms.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OŚL3_W01] Discusses the basic concepts of mathematics, physics, chemistry and biology. Describes physical, chemical and biological phenomena occurring in nature as well as geological, geomorphological and climatic conditions of the functioning of nature.	knows and understands at an advanced level the concepts and processes in the field of physics, chemistry and biology occurring in water, as well as their mutual relationships with regard to organisms living in water	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[OŚL3_U04] Uses specialist language in the discussion and properly uses the nomenclature in the field of environmental protection and individual disciplines related to it.	is able to use hydrobiology nomenclature correctly, uses specialist language in discussions	[SU1] oral statement/conversation/ discussion
[OŚL3_U09] Prepares in Polish/ English a short description of research, observation or problem task carried out during classes using appropriate scientific terminology.	is able to prepare a short description of a problem-solving task in the field of hydrobiology discussed during classes using appropriate scientific terminology	[SU3] text preparation/written work [SU5] implementation of a problem task
[OŚL3_K05] Identifies the level of her/his knowledge and skills, demonstrates the need to update knowledge about the environment and its protection, demonstrates the need for continuous professional training and personal development.	identifies the level of his/her knowledge and skills, demonstrates the need for continuous training in the field of hydrobiology	[SK1] oral statement/conversation/ discussion
[OŚL3_U01] Performs tasks under supervision and independently in the field of analysis of the natural environment and the functioning of natural and man-made natural systems.	using his/her knowledge of hydrobiology, he/she is able to perform tasks related to the analysis of the natural environment and the functioning of natural and human-modified natural systems	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report

Subject contents

Exercise topics

1. Learning about the properties of the aquatic environment, i.e. the physicochemical, edaphic and biotic parameters of freshwater and marine waters, which have a fundamental impact on the occurrence and biology of organisms living there.
2. Presentation of different types of water - rivers, lakes and marine waters.
3. Learning about plant and animal organisms living in different aquatic ecosystems - salty, brackish and freshwater.
4. Learning about the mutual dependencies and connections between these organisms and the environment, using selected examples.
5. Discussion of the problems of contemporary hydrobiology - including drought, eutrophication, acidification

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
	51.0%	75.0%
	51.0%	25.0%

Recommended reading

Basic literature	• Pliński M., 1992, Hydrobiologia ogólna, wyd. Uniwersytet Gdański (i wydania późniejsze) • Górniak A., Kajak Z., 2019, Hydrobiologia - Limnologia, wyd. PWN • Odum E., 1982, Podstawy ekologii, PWRiL, Warszawa
Supplementary literature	• Żmudziński L., 1974, Świat zwierząt Bałtyku, WSiP • Thurman U., 1982, Zarys oceanologii, Wydawnictwo Morskie, Gdańsk • Chojnacki J., 1998, Podstawy ekologii wód, wyd. Akademii Rolniczej w Szczecinie, Szczecin • Kajak Z., 1998, Hydrobiologia - Limnologia Wyd. Nauk. PWN, Warszawa • Opuszyński K., 1979, Podstawy biologii ryb, Wyd. PWRiL • Pliński M., 2008, Biologia organizmów morskich, Wyd. Uniwersytet Gdański, Gdańsk • Podbielkowski Z., Tomaszewicz H., 1979, Zarys hydrobotaniki, PWN Warszawa • Polakowska M., 1961, Rośliny wodne - Atlas, Państwowe Zakłady Wydawnictw Szkolnych • Starmach K., 1973, Wody śródlądowe. Zarys hydrobiologii. Skrypt UJ Kraków

	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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