University of Gdańsk

Subject card

Subject name and code	Hydrobiology, PG_00103626		
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	dr Justyna Kobos	

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	15.0	50

Subject objectives	The aim of the course is to provide basic concepts and terms in the field of hydrobiology. To learn the ecological specificity of the aquatic environment and the adaptations of living organisms to this environment.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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 [SU4] test/exam - oral or written
[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 [SU4] test/exam - oral or written
[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
[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_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

Subject contents

Lecture topics

1. Specificity of living conditions in water (impact of physical, chemical, edaphic and biological factors on organisms)
2. Biology of aquatic organisms (buoyancy, movement, osmoregulation, respiration, nutrition, reproduction)
3. Review and characteristics of ecological formations: plankton, nekton, pleuston, neuston, benthos
4. Ecobiological characteristics of the aquatic environment in the scope of basic types of reservoirs
5. Shaping of ecological parameters in the littoral, sublittoral, benthic and pelagial
6. Basic data on the productivity of aquatic ecosystems
7. Problems of contemporary hydrobiology: eutrophication, acidification and saprobization

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
exam / test	51.0%	100.0%

Recommended reading

Basic literature

Plińsk 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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