University of Gdańsk

Subject card

Subject name and code	Functioning of marine ecosystems, PG_00033323						
Field of study	Environmental Protection						
Date of commencement of studies	October 2024		Academic year of realisation of subject	2025/2026			
Education level	undergraduate 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	2		Language of instruction	Polish			
Semester of study	4		ECTS credits	2.0			
Learning profile	academic		Assessment form				
Conducting unit	Pracownia Ekofizjologii i Bioenergetyki -> Katedra Ekologii Morza -> Faculty of Oceanography and Geography						
Name and surname of lecturer (lecturers)	Subject supervisor	dr Joanna Hegele-Drywa					
	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						
	Additional information: implementation of classes in online form						
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 familiarise students with the basic processes occurring in the aquatic environment, to determine the influence of abiotic factors (i.e. temperature, salinity, oxygen deficiency, presence of hydrogen sulphide, heavy metals) on the functioning of organisms in various environmental conditions. The course covers the basic concepts related to the functioning of organisms, populations, species, in aquatic ecosystems.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OŚL3_W06] Characterises levels of life organization, biodiversity and the interaction of organisms and the environment.	Characterises selected elements concerning the aquatic environment: ecosystem, population biocenosis and processes and phenomena occurring at different levels of organisation in the aquatic environment as well as the interactions of organisms and the environment.	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[OŚL3_K06] Knows and appreciates the practical application of the acquired knowledge and skills in solving problems.	Identifies the importance of the knowledge and skills acquired for achieving sustainable development in all its aspects (social, economic and environmental). Is responsible and appreciates the practical application of acquired knowledge.	[SK1] oral statement/conversation/ discussion
[OŚL3_W05] Explains the course of natural and anthropopressional physical, chemical and biological processes and phenomena occurring in nature at various levels of matter organisation.	Explains the natural and anthropopressure-induced physical, chemical and biological processes and phenomena occurring in nature at different levels of the organization of matter.	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[OŚL3_W07] Explains the causal relationship between the content of specific pollutants and the state of the environment (including human health) and the occurrence of adverse phenomena on a local, regional and global scale.	Explains to an advanced degree the cause-and-effect relationships between the content of specific pollutants and marine ecosystems and the occurrence of adverse phenomena at local, regional and global scales in these ecosystems.	[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.	Uses environmental terminology and the nomenclature of the various related disciplines.	[SU1] oral statement/conversation/ discussion [SU4] test/exam - oral or written

Subject contents

The class deals with the functioning of marine ecosystems using various bodies of water as an example. The class is intended to familiarise students with the principles of functioning of marine ecosystems, assessment of the diversity of life in the sea and the principles of its protection. Students take an active part in the lecture by participating in the discussion.

Prerequisites and co-requisites

Assessment methods and criteria

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

Recommended reading

Basic literature	Wolnomiejski N., Pawlikowski T.. Zarys ekologii i ochrony mórz. Część I. Wydawnictwo Uniwersytetu Mikołoja Kopernika. Toruń 2006 Duxbury A.C., Duxbury A.B., Sverdrup K.A.. Oceany świata. Wydawnictwo Naukowe PWN. Warszawa 2002 Byatt A., Fothergill A., Holmes M.. Błękitna planeta. Historia naturalna oceanów. MUZA SA. Warszawa 2002
Supplementary literature	Pliński M. Hydrobiologia ogólna.Uniwersytet Gdański, 1992
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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