University of Gdańsk

Subject card

Subject name and code	Marine Ecology - laboratory, PG_00206195		
Field of study	Oceanography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Master's studies	Subject group	Obligatory subject group in the field of study Optional subject group 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	1	ECTS credits	4.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of Marine Ecosystems Functioning -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Justyna Świeżak	
	Teachers		

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	45.0	0.0	0.0	45
	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	45	3.0	52.0	100

Subject objectives	Familiarization with the fundamental problems in marine ecology, particularly the influence of abiotic and biotic factors on the functioning of marine organisms at different levels of biological organization.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OCEANMU2-W06] knows and identifies potential threats to the marine environment on a local and global scale resulting from strong anthropopressure, predicts their effects on various time and space scales	Student represents well-grounded knowledge on terminology describing ecological processess and is capable of understanding ecological processess (natural, human-driven) in the marine environment. This knowledge allows for skillfull navigation in the scientific literature (polish and english), in order to develop their career in academia or enironmental consulting agencies.	[SW3] text preparation/written work
[OCEANMU2-K02] is ready to take full responsibility in terms of actions taken and compliance with professional ethics and principles intellectual honesty, is aware of the importance professional approach in every situation	Knowledge of ecological processes in order to to describe and present an overview of ecological processes and the ability to present selected ecological problems.	[SK1] oral statement/conversation/ discussion [SK8] observation of student's independent or team work
[OCEANMU2-W01] knows and understands in-depth specialized terminology used in oceanography and related sciences (in Polish and a selected foreign language)	Knowledge of marine ecology terminology allows for understanding contemporary ecological problems and creating new concepts in the study of ecological processes in marine ecology and readiness for social education in the light of marine ecological awareness.	[SW2] presentation/project/paper/ report
[OCEANMU2-U01] is able to formulate and solve complex and unusual problems regarding the functioning of individual components of the marine environment using knowledge from various fields and scientific disciplines and propose solutions	Student knows and applies the rules of ethics, intelectual honesty, and is aware of the importance of professionalism at workplace.	[SU1] oral statement/conversation/ discussion
[OCEANMU2-U02] is able to fluently and accurately use scientific terminology when presenting and discussing oceanographic issues, and to propose and justify innovative solutions	Well-established knowledge that will allow to expand the knowledge of ecological processes in the marine environment to include other aspects, including socio-economic and legal matters, and use them to build and promote a holistic approach to ecological education, conducting scientific research or proposing new solutions in the management of marine resources.	[SU2] presentation/project/paper/ report

Subject contents

1 Adaptations and reactions of the aquatic organisms (behavior, metabolic rate, mortality) to the changes in environmental factors such as salinity, sediment type, temperature.

2. Growth and development dynamics of marine organisms across different biogeographic regions.

3. Colonization and succession of macrobenthic epifauna on hard substrates.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Final test (written examination)	51.0%	20.0%
Test (at the beginning of every class)	51.0%	40.0%
Report (reporting activities from each laboratory project)	51.0%	40.0%

Recommended reading	Basic literature	Kinne O., 1977. Marine Ecology vol. I i II John Wiley and Sons Ltd, New YorkOdum E.P., 1953. Fundamentals of ecology. Saunders, Philadelphia, or any republished version Karasov W.H., Martinez del Rio C., 2007, Physiological ecology. Princeton University Press, Princeton Kaiser M., Attrill M., Jennings S., Thomas D.N., Barnes D., Brierley A., Polunin N., Raffaelli D., Williams P.L.B., 2005, Marine Ecology: Processes, Systems, and Impacts. Oxford University Press, Oxford Snoeijs-Leijonmalm P., Schubert H., Radziejewska T., 2017, Biological Oceanography of the Baltic Sea. Springer Science and Business Media, Dordrecht Schiewer U., 2008, Ecology of Baltic coastal waters. Springer, Berlin Kaiser M., Attrill M., Jennings S., Thomas D.N., Barnes D., Brierley A., Polunin N., Raffaelli D., Williams P.L.B., 2005, Marine Ecology: Processes, Systems, and Impacts. Oxford University Press, OxfordSchiewer U., 2008, Ecology of Baltic coastal waters. Springer, Berlin and other relevant scientific publications
	Supplementary literature	Wilkinson D.M., 2007, Fundamental processes in ecology. An earth systems approach. Oxford University Press, Oxford Thurman H., 1993. Essentials of oceanography. Macmillan, New York
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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