University of Gdańsk

Subject card

Subject name and code	Principles of marine invertebrates biology - laboratory exercises, PG_00118067		
Field of study	Oceanography		
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	3.0
Learning profile	academic	Assessment form	
Conducting unit	Katedra Funkcjonowania Ekosystemów Morskich -> Faculty of Oceanography and Geography		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Luiza Bielecka	
	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	9.0	36.0	90

Subject objectives	To familiarize the student with the biology and ecology of marine invertebrates, the diversity of these animals, the specific structure of their bodies, including basic identification features used to recognize animals at various taxonomic levels and features indicating adaptations to the environment. Acquiring skills in taxonomic identification of marine invertebrates.

Learning outcomes

Course outcome	Subject outcome	Method of verification
OCEANL3-W05	Knows at an advanced level techniques, research methods and tools used for identification analyzes of marine invertebrates in order to describe and interpret phenomena and processes occurring in the marine environment	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW5] implementation of a problem task
OCEANL3-U04	Is able to independently search for information in Polish and English-language specialist literature, as well as in the Internet and databases regarding issues related to the biology and ecology of marine invertebrates (program content)	[SU4] test/exam - oral or written [SU8] observation of student's independent or team work
OCEANL3-U01	Can use scientific terminology fluently and appropriately in presenting and discussing problems in the field of oceanography with particular emphasis on the biology and ecology of marine invertebrates	[SU1] oral statement/conversation/ discussion [SU4] test/exam - oral or written
[OCEANL3-K05] is willing to take responsibility for the safety of his/ her own and others' work, is aware of the risks and threats resulting from the work performed	Is willing to take responsibility for the safety of his/her own and others' work, is aware of the risks and threats resulting from the work performed in laboratory	[SK8] observation of student's independent or team work
OCEANL3-W01	Knows and understands in-depth specialized terminology used in oceanography and related sciences (in Polish, English and/or Latin) with particular emphasis on the biology and ecology of marine invertebrates	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
OCEANL3-W07	Knows and understands the basic principles of occupational health and safety as an oceanographer with a biological specialization	[SW5] implementation of a problem task

Subject contents

A detailed review of selected marine invertebrate taxa, starting from Protista through the main taxonomic groups, with particular emphasis on the fauna of the Baltic Sea. roscopic and microscopic analysis of marine invertebrates occurring in various water bodies and belonging to various ecological formations. Identification and classification of animals based on detailed biological analysis (specific diagnostic features, body shape and structure, body coverings, features related to lifestyle, way of moving, eating, place of living) to the level of lower taxonomic categories, including the recognition of sexual dimorphism features) .

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
test II	51.0%	30.0%
test I	51.0%	30.0%
activity and completion of tasks during laboratory exercises	51.0%	40.0%

Recommended reading

Basic literature	Błaszak Cz., 2009. Zoologia, Bezkręgowce, tom I i II. PWN. Grabda E., 1986. Zoologia. Bezkręgowce. PWN. Jura Cz., 1997. Bezkręgowce. PWN. Mańkowski Wł., 1955. Atlas zooplanktonu Bałtyku. Morski Instytut Badawczy. Gdynia. Nybakken, J. W., M. D. Bertness, 2005. Marine biology an ecological approach, Pearson Education, San Francisco. Smith, D. L., K. B. Johnson, 1996. A guide to marine coastal plankton and marine invertebrate larvae. Kendall/Hunt Publishing Com-pany, USA. Sumich, J. L., J. F. Morrissey, 2004. Introduction to the biology of marine life, Jones & Bartlett Publishers, Sudbury. Todd, C. D., M. S. Laverack, G. A. Boxshall, 2006. Coastal Marine Zooplankton. A practical manual for students, Cambridge Uni-versity Press, Cambridge. Żmudziński L., 1990. Świat zwierzęcy Bałtyku. Atlas makrofauny. Wydawnictwo Szkolne i Pedagogiczne, Warszawa. Keys to the identification of marine invertebrates in various water bodies - specialized literature
Supplementary literature	Supplemental literature is determined based on students' interests.

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

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