University of Gdańsk

Subject card

Subject name and code	Diseases of Marine Organisms - laboratory , PG_00204926						
Field of study	Oceanography						
Date of commencement of studies	October 2027		Academic year of realisation of subject		2028/2029		
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	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Katarzyna Smolarz, prof. UG				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	20.0	0.0	0.0	20
	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	20		5.0		25.0	50
Subject objectives	he aim of the course is to analyze and assess the health of marine organisms living in natural conditions						

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	knows and identifies potential threats to the marine environment on a local and global scale resulting from strong anthropopressure, predicts their effects on the condition and well-being of marine organisms (program contents B2-B3)	[SW2] presentation/project/paper/ report
[OCEANMU2-U08] is able to prepare a study of a given issue/ problem in Polish and a selected foreign language in written form (short scientific text, documented research work) and orally (paper, presentation) and discuss with specialists on topics related to oceanographic issues, with particular emphasis on the studied specialty	is able to prepare a study of a selected issue/problem in Polish and English in written form (short scientific text, documented research work) and orally (paper, presentation) and discuss topics related to oceanographic issues in the thematic scope related to diseases of free-living marine organisms (program content B2-B4)	[SU1] oral statement/conversation/ discussion
[OCEANMU2-U04] is ready to develop in an analytical and synthetic way research and analysis results and based on them creating conclusions	is able to analytically and synthetically develop research and analysis results and, based on them, make correct conclusions regarding the diagnosis of diseases of marine organisms (program contents B1-B4).	[SU4] test/exam - oral or written
[OCEANMU2-K05] is ready to follow the rules occupational health and safety, taking care of the entrusted person specialized and recognition equipment emergency situations and take appropriate action activities	is ready to comply with the principles of occupational health and safety, take care of the specialized equipment entrusted to him, recognize threat situations and take appropriate actions (program content: B4)	[SK1] oral statement/conversation/ discussion [SK8] observation of student's independent or team work

Subject contents

1 Familiarizing the student with the safety rules used in the laboratory and preparing for group work.

2 Diagnostics of diseases and pathological changes in free-living marine organisms.

3 Anatomopathological changes (retrograde changes, inflammation, cancer, parasitic infections) and epizootics on the example of Limecola balthica mussels.

4 Basic principles of ethics in biological research, the use of literature sources and reporting.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
assessment of activity and work directly during classes (assessed: group work, activity)	51.0%	15.0%
knowledge of the material discussed during classes (assessed: practical use of discussed issues, association of facts)	51.0%	60.0%
final report (assessed: comprehensiveness of the topic, substantive correctness, originality, form)	51.0%	25.0%

Recommended reading

Basic literature

Klatt E. C., Edward C., Klatt MD., Vinay, Kumar MD., Kumar V., 2000. Rewiev of pathology, W B Saunders; 1st edition
Cotran R. S., Kumar V., Collins T., Robbins S. L., 1999. Pathologic basis of disease, W B Saunders; 6th edition
Kinne O. 1980. Diseases of marine animals Vol. I, General aspects, Protozoa to Gastropoda, Wiley & Sons

Hopkin S.P., Sibly R.M., Peakall D.B., 2002. Podstawy ekotoksykologii, Wyd. PWNMalicka E., Materiały pomocnicze do ćwiczeń z histopatologii zwierząt, 2008, SGGW, Warszawa

	Supplementary literature	Hochberg F.G., 1990. Diseases of marine animals Vol. III, Introduction, Mollusca: Cephalopoda, Crustacea, etc. to Urochordata., Kinne O. (red), Biologische Anstalt Helgoland, Hamburg; Howard D., Lewis E.j., Keller J., Smith C.S., 2004, Histological techniques for Marine bivalve mollusks and crustaceans, NOAA
	eResources addresses	
Example issues/ example questions/ tasks being completed	none	
Work placement	Not applicable	

Document generated electronically. Does not require a seal or signature.