University of Gdańsk

Subject card

Subject name and code	Toxic Blooms of Marine Microalgae - lecture, PG_00205302		
Field of study	Oceanography		
Date of commencement of studies	October 2027	Academic year of realisation of subject	2029/2030
Education level	Bachelor'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	3	Language of instruction	Polish
Semester of study	6	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Laboratory of Phycology -> Department of Marine Biology and Biotechnology -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Justyna Kobos	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	0.0	0.0	15

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	15	1.0	9.0	25

Subject objectives

Providing basic information about marine microalgae. Understanding the causes and environmental and economic impacts of cyanobacterial and algal blooms in the marine environment

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OCEANL3-W03] has an advanced understanding of the relationships between living and non-living components of aquatic environments, and is aware of the complex nature, intricacy, and natural variability of these environments	knows and understands the interdependencies of the marine environment, its complexity and natural variability, which influences the development cycles of microalgae and the formation of toxic blooms	[SW4] test/exam - oral or written

Subject contents

- Taxonomy of toxic microalgae.
- The impact of environmental factors on the life cycles of algae in marine and ocean waters
- Marine biotoxins (Cyanotoxins, PSP, CFP, DSP, NSP, ASP).
- Modern methods for analyzing toxic algal blooms
- Legal regulations and guidelines for risk assessment of human and animal health

Prerequisites and co-requisites

Assessment methods and criteria

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

Recommended reading

Basic literature	Publications indicated by the lecturer related to the lecture topic

	Supplementary literature	Hallegraeff G.M., Anderson D.M. Cembella A.D. (Ed.) Manual on Harmful Marine Microalgae. 2004, UNESCO Publising Hundell H.K. (ed.) Cyanobacteria Harmful Algal Blooms Advances in experiomental medicine and biology. 2008, Springer.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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