Subject card

Subject name and code	Biological Oceanography - laboratory, PG_00205260						
Field of study	Oceanography						
Date of commencement of studies	October 2027		Academic year of realisation of subject		2028/2029		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study 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		4.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Laboratory of Plankton Biology -> Department of Marine Biology and Biotechnology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Anna Panasiuk				
	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		5.0		50.0	100
Subject objectives	To familiarize students with the ecological formations of the seas and oceans, their main representatives and adaptations to the environment.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OCEANL3-U03] is able to process, describe, and present results, and draw conclusions	Is able to plan research and measurements, both in the field and in the laboratory, independently or under the supervision of a research supervisor, using appropriately selected measurement and analytical techniques in the field of biological oceanography, adequate to the research problem posed.	[SU4] test/exam - oral or written
[OCEANL3-U01] is able to use the current scientific terminology in the field of oceanography in various forms of expression	Is able to use current scientific terminology in presenting and discussing problems in the field of biological oceanography.	[SU4] test/exam - oral or written
[OCEANL3-U11] is able to work individually and collaborate in a team, assuming various roles and performing different tasks	Is able to work individually and collaborate in laboratory and field groups, performing various functions and tasks.	[SU4] test/exam - oral or written
[OCEANL3-K06] is willing to use the acquired knowledge in planning and designing professional activities as well as thinking and acting in an entrepreneurial way, also in the field of social activities undertaken	Is ready to comply with the principles of occupational health and safety, take care of the specialist equipment, and is aware of the risks and hazards resulting from the work performed.	[SK4] test/exam - oral or written
[OCEANL3-U04] is able to independently search for information in Polish and foreign specialist literature, as well as on the Internet and in databases	Is able to use source information in Polish and English, including archival and electronic databases, in the field of biological oceanographic issues, and performs critical analysis and synthesis of information.	[SU4] test/exam - oral or written
[OCEANL3-U12] is able to systematically expand and update oceanographic knowledge and enhance professional qualifications	Is able to systematically expand and update knowledge in the field of biological oceanography and improve professional qualifications.	[SU4] test/exam - oral or written

Subject contents

Review of basic ecological formations in seas and oceans.

Trophic relationships in open and coastal waters.

Prerequisites and co-requisites

Assessment methods and criteria

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

Recommended reading

Basic literature	Demel K. (1979) Życie morza, Wyd. Morskie, Gdańsk (in Polish) Duxbury A.C., Duxbury A.B., Sverdrup K.A. (2002) Oceany świata, PWN, Warszawa (in Polish) Nybkken J.W., Bartness M. D. (ed) (2005) Marine Biology, an ecological approach, Person Beniamin Cummings Pliński M. (1994) Biologia organizmów morskich. Wydawnictwo UG, Gdańsk (in Polish) Thurman H.V. (1982) Zarys oceanologii, Wyd. Morskie, Gdańsk (in Polish) Umiński T. (1976) Zwierzęta i oceany: popularna zoogeografia wód morskich. Wydawnictwo Szkolne i Pedagogiczne, Warszawa (in Polish) Żmudziński L. (1990) Świat zwierzęcy Bałtyku: atlas makrofauny. Wydawnictwo Szkolne i Pedagogiczne, Warszawa (in Polish)
Supplementary literature	Gage J.G., Tyler P.A. (1991) Deep Sea Biology, Cambridge Univesity Press Korzeniewski K. (1998) Ochrona środowiska morskiego, Wyd. UG, Gdańsk (in Polish) Lwowicz M.I. (1979) Zasoby wodne świata, PWN Warszawa (in Polish) Depowski S. (1998) Surowce mineralne mórz i oceanów, Wyd. Scholar, Warszawa (in Polish) Różańska Z. (1987) Zasoby, zanieczyszczenia i ochrona wód morskich ze szczególnym uwzględnieniem Bałtyku, PWN Warszawa (in Polish)
eResources addresses	

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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