

**Subject card**

<b>Subject name and code</b>	Biogeography of the seas and oceans - laboratory exercises, PG_00118082						
<b>Field of study</b>	Oceanography						
<b>Date of commencement of studies</b>	October 2024	<b>Academic year of realisation of subject</b>			2026/2027		
<b>Education level</b>	undergraduate studies	<b>Subject group</b>			Obligatory subject group in the field of study Optional subject group		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	3	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	6	<b>ECTS credits</b>			1.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>					
<b>Conducting unit</b>							
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Anna Panasiuk				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	0.0	0.0	15.0	0.0	0.0	15
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	15		5.0		20.0	40
<b>Subject objectives</b>	To familiarize students with the basics of the variability of flora and fauna communities in the water column and on the seabed on a global scale, with the biogeographic divisions of seas and oceans.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[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	student is ready to comply with occupational health and safety rules, take care of the specialist equipment entrusted to them, is aware of the risks and threats resulting from the work performed	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work
	OCEANL3-U02	student is able to plan research and measurements independently or under the supervision of a research supervisor, both in the field and in the laboratory, using appropriately selected measurement and analytical techniques in the analysis of the ranges of occurrence of representatives and communities of marine flora and fauna	[SU1] oral statement/conversation/discussion [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[OCEANL3-K03] is ready to exercise caution and criticism in accepting information from scientific literature, the Internet and other media relating to natural sciences	student is ready to be cautious and critical in accepting information from scientific literature, the Internet and other media relating to the biogeography of the seas and oceans	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work
OCEANL3-W01	the student has an advanced knowledge and understanding of the terminology in natural sciences (in Polish, English and/or Latin), with particular emphasis on the biogeographic divisions of seas and oceans	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion	
Subject contents	1. Marine organisms/organism communities characteristic of individual biogeographic regions, including endemic, cosmopolitan and bipolar species. 2. Vertical range and zonal distribution of macrophytobenthos; review of the distribution of selected plant organisms in individual biogeographic regions; endemic algae species and their distribution. 3. "Pathways" of species dispersal, ranges and their boundaries, transition zones. 4. Oceanic and neritic communities within marine fauna. 5. Seabed topography and species dispersal capacity. 6. Current state of biodiversity within biogeographic regions - influent species. 7. Methods of biogeographic research.		
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	Lomolino M. V., Brown J. H., Riddle B. R. (2005) Biogeography, Sunderland: Sinauer Associates Longhurst A. (2007) Ecological geography of the sea. Elsevier, Academic Press, San Diego. Luning K. (1990) Seaweeds, Their environment, biogeography, and ecophysiology. John Wiley & Sons. Inc. New York. Wiktor K., Węśławski J. M., Żmijewska M. I. (1997) Biogeografia Morza, Wyd. UG. Gdańsk (in polish)	
	Supplementary literature	Bailey R. G. (1998) Ecoregions: the ecosystem geography of the oceans and continents. Springer, New York. Blaxter J. H. S., Southward A. J. (1997) The Biogeography of the Ocean. In: Advances in Marine Biology, Academic Press, San Diego Cox C. B., Moore P. D. (2010) Biogeography: An ecological and Evolutionary Approach, John Wiley & Sons, Hoboken Gage J. D., Tyler P. A. (1991) DEEP-SEA BIOLOGY: A natural history of organisms at the deep-sea floor. University Press, Cambridge.	
	eResources addresses	Adresy na platformie eNauczenie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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