University of Gdańsk

Subject card

Subject name and code	Marine Geology - laboratory, PG_00206130						
Field of study	Oceanography						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2026/2027			
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	1		Language of instruction	Polish			
Semester of study	2		ECTS credits	2.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Laboratory of Marine Geology -> Department of Chemical Oceanography and Marine Geology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Angelika Szmytkiewicz				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	0.0	0.0	30
	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	30		3.0	17.0	50	
Subject objectives	To learn and understand the processes that determine the evolution of the oceans, the geological structure of the oceanic crust, the morphological structure of the bottom and the types of bottom sediments and the patterns of their occurrence. The Baltic Sea as an example of an epicontinental sea.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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 collaboratively in a group, planning and carrying out the successive stages of an assigned task, and takes responsibility for its correctness and results	[SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU5] implementation of a problem task
[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 search independently in Polish and English language specialist literature, on the Internet and in databases for the correct description of the morphology and characteristics of the seabed, sediments and the course of geological processes	[SU2] presentation/project/paper/ report [SU5] implementation of a problem task
[OCEANL3-W02] has a broad knowledge and understanding of physical, biological, chemical, and geological processes and phenomena occurring in aquatic environments, with particular emphasis on the marine environment	knows and understands geological processes and the accompanying physical, biological, chemical phenomena occurring within the oceanic crust and in the marine environment	[SW4] test/exam - oral or written [SW3] text preparation/written work
[OCEANL3-W01] has an advanced knowledge and understanding of the terminology used in oceanography and related exact and natural sciences (in Polish and a selected foreign language)	has an advanced knowledge and understanding of the terminology used in marine geology and used to describe geological processes in the seas and oceans	[SW4] test/exam - oral or written [SW3] text preparation/written work [SW5] implementation of a problem task
[OCEANL3-U06] is able to formulate and solve advanced problems related to the functioning of individual components of the marine environment, using knowledge from various fields and scientific disciplines	is able to define relationships concerning the functioning of particular components of the marine environment, with particular emphasis on geological processes, integrating knowledge from various fields and scientific disciplines	[SU3] text preparation/written work [SU4] test/exam - oral or written [SU5] implementation of a problem task
[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 marine geology in a variety of forms of expression	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written

Subject contents

Morphological units of the world ocean floor. Bathymetric profile. Relationship of plate tectonics to the development and morphology of the ocean floor. Geological processes at lithosphere plate boundaries. Seismicity and volcanism in the world ocean. Ocean floor sediments - sediment identification based on data from the ocean drilling programme. Outline of the genesis and development of the Baltic Sea.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Reports	51.0%	40.0%
Test	51.0%	60.0%

Recommended reading

Basic literature	Duxbury A. C., Duxbury A. B., Sverdrup K. A. 2002: Oceans of the World. Wyd. Naukowe PWN Witak M., 2013. Outline of the postglacial evolution of the Southern Baltic. [in:] J. Cyberski (Ed.), Coastal protection in state maritime policy.
Supplementary literature	Leontjew O.K. 1972 Bottom of the Ocean. Wyd. Geologiczne Stanley S. M., 2002, History of the Earth. Wydawnictwo Naukowe PWN
eResources addresses	

Example issues/ example questions/ tasks being completed

Identify the types of triple-junction that occur between plates in the Pacific.

Explain the reasons for the differential distribution of sediments in the Pacific and Atlantic ocean basins.

Work placement	Not applicable

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