

**Subject card**

<b>Subject name and code</b>	Sea floor geology - exercises, PG_00091110						
<b>Field of study</b>	Geology						
<b>Date of commencement of studies</b>	October 2024	<b>Academic year of realisation of subject</b>			2025/2026		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	2	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	4	<b>ECTS credits</b>			2.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>					
<b>Conducting unit</b>	Laboratory of Marine Geology -> Department of Chemical Oceanography and Marine Geology -> Faculty of Oceanography and Geography -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Ewa Szymczak				
	<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	30.0	0.0	0.0	30
	E-learning hours included: 0.0						
	Additional information: discussion, team work, individual student work, problem solving						
<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>	30		3.0		17.0	50
<b>Subject objectives</b>	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
	[GEOLL3_W01] knows and understands the basic natural phenomena and explains their course in relation to geological processes	knows and understands the relationship between physical, chemical and biological processes with the geological processes taking place within the oceanic crust (including sedimentary cover) and in the marine environment	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW3] text preparation/written work [SW5] implementation of a problem task
	[GEOLL3_U02] has the skill of analytical and synthetic way of reasoning leading to correct inference based on the results obtained or the facts presented	is able to describe the causes, development and effects of geological processes on the basis of his knowledge and the results obtained or facts presented	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[GEOLL3_U05] can reconstruct the history of geological development of selected regions in Poland and in the world on the basis of maps, cross-sections and exposures in the field	is able to use source materials (maps, diagrams, cross-sections) to correctly describe the morphology and characteristics of the sea floor, sediments and to reconstruct the sequence of geological processes	[SU3] text preparation/written work [SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[GEOLL3_W04] knows and understands phenomena and processes occurring in the past and today in the interior of the Earth and on its surface, defines the methods of how to study them	knows and understands the geological processes related to the evolution of the seas and oceans, defines the methods to study them and reconstruct the history of geological evolutions	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
[GEOLL3_U10] is able to work individually and cooperate in laboratory and field groups performing various functions in them and performing various tasks	is able to work individually and collaboratively in a group, planning and carrying out assigned tasks in a timely manner, and takes responsibility for their correctness and results	[SU2] presentation/project/paper/report [SU8] observation of student's independent or team work	
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
	assessments of partial assignments	51.0%	40.0%
	written assessment	51.0%	60.0%
Recommended reading	Basic literature	Witak M., 2013. Outline of the postglacial evolution of the Southern Baltic. [in:] J. Cyberski (Ed.), Coastal protection in state maritime policy.  Uściniowicz Sz., Kramarska R., 2011. Geological structure and bottom sediments of the Baltic Sea, [in:] Geochemistry of Baltic Sea surface sediments, Sz. Uściniowicz (red.), PIG-BIP	
	Supplementary literature	Kearey P., Klepeis K.A., Vine F.J., 2009. Global tectonics, Wiley-Blackwell  Kent C. Condie, 2003. Plate Tectonics and Crustal Evolution. Butterworth-Heinemann  Larter R.D., Leat P.T., 2003. Intra-Oceanic subduction systems, The Geological Society London  Yuen, D.A., Maruyama, S., Karato, S.-i., Windley, B.F. (Eds.), 2007, Superplumes: Beyond Plate Tectonics, Springer  Sarle R., 2013. Mid-Ocean Ridges. University Printing House, Cambridge	

	eResources addresses	Podstawowe <a href="https://www.gov.pl/attachment/536ae025-a67c-4d29-94a3-15c77cb55b21">https://www.gov.pl/attachment/536ae025-a67c-4d29-94a3-15c77cb55b21</a> - GEOGRAPHICAL NOMENCLATURE WORLD - Seas and oceans Volume 10 Adresy na platformie eNauczenie:
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	

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