

Subject card

Subject name and code	Sea floor geology - exercises, PG_00091110						
Field of study	Geology						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	Bachelor's studies		Subject group		Obligatory subject group 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	4		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 Ewa Szymczak				
	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
	[GEOLL3_W01] knows and understands the basic natural phenomena and explains their course in relation to geological processes	characterises 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_U10] is able to work individually and cooperate in laboratory and field groups performing various functions in them and performing various tasks	works individually and collaboratively in a group to plan and carry out assigned tasks in a timely manner, feels responsible for their correctness and results	[SU2] presentation/project/paper/report [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	identifies 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_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_U02] has the skill of analytical and synthetic way of reasoning leading to correct inference based on the results obtained or the facts presented	analyses the causes, course 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
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.	
		Uścińowicz Sz., Kramarska R., 2011. Geological structure and bottom sediments of the Baltic Sea, [in:] Geochemistry of Baltic Sea surface sediments, Sz. Uścińowicz (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		

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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