

Subject card

Subject name and code	The geology of sediments of the Baltic Sea, PG_00054992						
Field of study	Oceanography						
Date of commencement of studies	October 2025		Academic year of realisation of subject			2025/2026	
Education level	Master's studies		Subject group			Obligatory subject group in the field of study Optional subject group 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	1		ECTS credits			2.0	
Learning profile	academic		Assessment form			credit	
Conducting unit	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Maria Rucińska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	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		10.0		15.0	55
Subject objectives	Understanding the genesis and geological structure of the Baltic Sea and the types of bottom sediments and their distribution patterns						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[OCEANMU2-W01] knows and understands in-depth specialized terminology used in oceanography and related sciences (in Polish and a selected foreign language)		Knows and understands in detail the specialised terminology related to the evolution and geology of the Baltic Sea			[SW4] test/exam - oral or written	
	[OCEANMU2-W05] knows and understands the principles of planning and conducting field and laboratory research as well as advanced methods and tools of scientific research, especially in the field of the studied specialty		Knows and understands in detail the research methods and statistical tools used in the description of Baltic Sea sediments			[SW4] test/exam - oral or written	
	[OCEANMU2-W02] knows and understands complex processes and phenomena occurring in the marine environment, with particular emphasis on the coastal zone, as well as complex relationships between living and non-living elements of the aquatic environment		Identifies and correctly describes complex geological processes and explains their relationship to marine and coastal processes in the Baltic Sea in the present and past			[SW4] test/exam - oral or written	

Subject contents	1 Methods of marine sediment analysis 2 Sources of sediment inputs to the Baltic Sea 3 Transport and deoposition conditions of sediments in the Baltic Sea environment 4 Stratigraphy, genesis and lithology of sediments of the Baltic Sea area 5 Development of the Baltic Sea area during the Pleistocene - glaciations and recent deglaciation 6 Origin and development of the Baltic Sea (late glacial and Holocene) 7 Contemporary sedimentary processes in the Baltic Sea		
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	Gudelis W.K., Jemielianow J.M., 1982. Geologia Morza Bałtyckiego, Wyd. Geol., Warszawa Atlas geologiczny Południowego Bałtyku, red J.E. Mojski, 1995, Państwowy Instytut Geologiczny, Warszawa Sopot Mojski J.E. (red.), 1995, Mapa geologiczna dna Bałtyku, 1:200 000. PIG, Warszawa Uścińowicz Sz., 2003, The Southern Baltic relative sea level changes, glacio-isostatic rebound and shoreline displacement. PIG Sp. Pap., 10. Uścińowicz Sz. (red.), 2011, Geochemia Osadów Powierzchniowych Morza Bałtyckiego, PIG PIB, Warszawa	
	Supplementary literature	Kramarska R. (red.), 1999, Mapa geologiczna dna Bałtyku bez utworów czwartorzędowych, 1:500 000. PIG, Warszawa Seibold E., Berger W. H., 1996, The Sea Floor, An Introduction to Marine Geology, Springer Szczepańska T., Uścińowicz Sz., 1994, Atlas geochemiczny południowego Bałtyku. PIG, Warszawa. S., Niemistö L. Geology of the Baltic Sea [w:] Voipio A., (red.), The Baltic Sea, Elsevier, Oceanography series Uścińowicz Sz., Narkiewicz W., Sokołowski K., 2003, Mineralogical composition and granulometry W: Contaminants in the Baltic Sea sediments (red. M. Perttilä).MERI Report Series of the Finnish Institute of Marine Research, No. 50: 2124. Voipio A., (red.) 1981, The Baltic Sea, Elsevier Oceanography series. Rozdział: Winterhalter B., Floden T., Ignatius H., Axbe	
	eResources addresses		
	Example issues/ example questions/ tasks being completed	List and describe the freshwater phases of development of the Baltic Sea (temporal extent, spatial extent, sediments, etc.).	
Work placement	Not applicable		

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