University of Gdańsk

Subject card

Subject name and code	The Geology of Sediments of the Baltic Sea - lecture, PG_00204953		
Field of study	Oceanography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
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	dr Maria Rucińska	

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

Additional information:

a lecture with a multimedia presentation

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	2.0	18.0	50

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-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
[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

Subject contents	1 Methods of marine sediment analysis 2 Sources of sediment inputs to the Baltic Sea 3 Transport and deopsition 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: test Passing threshold: 51.0% Percentage of the final grade: 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 Uścinowicz Sz., 2003, The Southern Baltic relative sea level changes, glacio-isostatic rebound and shoreline displacement. PIG Sp. Pap., 10. Uścinowicz 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., Uścinowicz Sz., 1994, Atlas geochemiczny południowego Bałtyku. PIG, Warszawa.rg S., Niemistö L. Geology of the Baltic Sea [w:] Voipio A., (red.), The Baltic Sea, Elsevier, Oceanography series Uścinowicz Sz., Narkiewicz W., Sokołowski K., 2003, Mineralogical composition and granulometry W: Contaminants in the Baltic Sea sediments (red. M. Perttila).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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