University of Gdańsk

Subject card

Subject name and code	The Geology of Sediments of the Baltic Sea - lecture, PG_00204992		
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	exam
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-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-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-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

<table>
<tr><td>Subject contents</td><td>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</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>written exam</td><td>51.0%</td><td>100.0%</td></tr>
</table>
</td></tr>
<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>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.), 19891995, 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</td></tr>
<tr><td>Supplementary literature</td><td>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.
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.,
Axberg S., Niemistö L. Geology of the Baltic Sea [w:] Voipio A., (red.), The Baltic Sea, Elsevier, Oceanography series</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>List and describe the freshwater phases of development of the Baltic Sea (temporal extent, spatial extent, sediments, etc.).</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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