University of Gdańsk

Subject card

Subject name and code	The Geology of Sediments of the Baltic Sea - laboratory , PG_00204991		
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	0.0	0.0	30.0	0.0	0.0	30

E-learning hours included: 0.0

Additional information:

project-based exercises and a field trip

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-U05] is able to use source information in Polish and a chosen foreign language, including archival and electronic databases, within the field of oceanography; critically analyzes and synthesizes information, and is capable of performing critical interpretation and synthesis of data	Be able to use statistical methods and application and specialised software in the preparation, presentation and interpretation of results of measurements and laboratory analyses of Baltic Sea sediments.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU8] observation of student's independent or team work
[OCEANMU2-U01] is able to formulate and solve complex and unusual problems regarding the functioning of individual components of the marine environment using knowledge from various fields and scientific disciplines and propose solutions	Be able to use specialist terminology fluently and appropriately in presenting and discussing issues in the geology of Baltic Sea sediments	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU8] observation of student's independent or team work
[OCEANMU2-U11] is able to work individually and cooperate in laboratory and field groups, performs various functions in them, including managerial ones, performs various assigned tasks	Able to work collaboratively in groups, taking on both leadership roles and carrying out delegated tasks, during field measurements and laboratory analyses of sediments	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU8] observation of student's independent or team work
[OCEANMU2-U02] is able to fluently and accurately use scientific terminology when presenting and discussing oceanographic issues, and to propose and justify innovative solutions	Be able to independently plan and carry out field investigations and measurements as well as relevant laboratory analyses of sediments in the field of sedimentary geology of the Baltic Sea	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU8] observation of student's independent or team work
[OCEANMU2-U04] is ready to develop in an analytical and synthetic way research and analysis results and based on them creating conclusions	Be able to independently use of literature data and databases in Polish and English on the geology of Baltic Sea sediments	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU8] observation of student's independent or team work
[OCEANMU2-U03] can plan and carry out independently advanced research and measurements, both in field and laboratory, using appropriately selected measurement and analytical techniques in the field of oceanography, adequately to the studied specialty and research problem	Can analytically and synthetically compile the results of sediment analyses and tests and make correct conclusions based on them	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU8] observation of student's independent or team work

Subject contents

Application of sediment analysis methods
Analysis of sediment characteristics and sedimentary structures
Interpretation of results of laboratory analyses of marine sediments

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
group project work (oral presentation)	51.0%	34.0%
group project work (written work)	51.0%	33.0%
observation of student's work (individual)	51.0%	33.0%

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.), 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

	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. 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
	eResources addresses	
Example issues/ example questions/ tasks being completed	Laboratory analysis of Baltic Sea sediments, statistical processing of results, and environmental and lithodynamic interpretation.	
Work placement	Not applicable	

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