University of Gdańsk

Subject card

Subject name and code	Principles of the Baltic Sea geology- laboratory excercises, PG_00131512						
Field of study	Marine Hydrography						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2026/2027		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Subject group related to practical vocational preparation		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	5		ECTS credits		2.0		
Learning profile	practical		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	0.0	0.0	25.0	0.0	0.0	25
	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	25		5.0		20.0	50
Subject objectives	Knowing and understanding the distribution and types of bottom sediments in the Baltic Sea						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[HML3-U14] use the applicable terminology in presenting and discussing problems related to the field of study	Plans, individually and as part of a team, the conduct of research and prepares the results in the form of a report using literature data.	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[HML3-U07] effectively use information and communication techniques, including utility programs to solve professional problems	Interprets the results of analyses of sediment characteristics and sedimentary structures and characterises the sedimentary environments in which the sediments were formed.	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[HML3-U18] work individually and in team, manage the work of the team, in particular comply with health and safety regulations and ergonomics	Plans, individually and as part of a team, the conduct of research and prepares the results in the form of a report using literature data.	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[HML3-U01] plan and conduct experiments, including computer simulations, interpret the results obtained and draw conclusions	Interprets the results of analyses of sediment characteristics and sedimentary structures and characterises the sedimentary environments in which the sediments were formed.	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[HML3-U02] select and apply basic research techniques and tools in the field of aquatic environment research, as well as plan and carry out measurements, develop the obtained results and interpret them correctly	Uses valid methods of marine sediment analysis.	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[HML3-U08] independently use the professional literature available in traditional and electronic form, make an assessment, critical analysis and synthesis as well as the correct interpretation of the information obtained	Plans, individually and as part of a team, the conduct of research and prepares the results in the form of a report using literature data.	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[HML3-W04] the issue of measurements related to the exploration of sea basins and inland waters and tools allowing to describe, interpret and present the results of measurements	Describes the analytical methods used in sediment analysis and the methods and statistical tools in interpreting the results of laboratory analyses of Baltic Sea bed sediments.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[HML3-U16] prepare in Polish and foreign language a study of a problem in the field of study with documented conclusions, supported by a report and a multimedia presentation	Plans, individually and as part of a team, the conduct of research and prepares the results in the form of a report using literature data.	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work

Subject contents

Introduction to laboratory methods for sediment analysis. Methods of sediment sample collection from the seabed. Granulometric analysis (sieve and sedimentation). Development and interpretation of grain size distribution results. Analysis and interpretation of sedimentary environments based on sediment textural features.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written report	51.0%	10.0%
colloquium	51.0%	90.0%

Recommended reading

Basic literature	Bolałek J. (Ed.), 2010, Fizyczne, biologiczne i chemiczne badania morskich osadów dennych. Wydawnictwo UG Myślińska E., 1998. Laboratoryjne badania gruntów, Wydawnictwo PWN Racinowski R., Szczypek T., Wach J., 2001, Prezentacja i interpretacja wyników badań uziarnienia osadów czwartorzędowych. Wyd. Uniwersytetu Śląskiego
Supplementary literature	Blott S., Pye K., 2001. GRADISTAT: a grain size distribution and statistics package for the analysis of unconsolidated sediments. Earth Surface Processes and Landforms 26 Gao S., Collins M., 2001. The use of grain size trends in marine sediments dynamics: a review. Chinese Journal of Oceanology and Limnology, vol. 19/3
eResources addresses	

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

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