University of Gdańsk

Subject card

Subject name and code	Principles of the Baltic Sea Geology - laboratory classes , PG_00201133		
Field of study	Marine Hydrography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2028/2029
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	2.0	23.0	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-W04] knows and understands, at an advanced level, 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	knows and understands, at an advanced level, the analytical methods used in sediment research, as well as the statistical methods and tools for interpreting the results of laboratory analyses of Baltic Sea bottom sediments	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
[HML3-U01] is able to plan and conduct experiments, including computer simulations, interpret the results obtained and draw conclusions	is able to interpret the results of analyses of sediment characteristics and sedimentary structures, and to characterize the sedimentary environments in which the sediments were formed	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[HML3-U02] is able to 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	is able to apply the correct methods for analyzing marine sediments	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[HML3-U07] is able to effectively use information and communication techniques, including utility programs to solve professional problems	is able to interpret the results of analyses of sediment characteristics and sedimentary structures, and to characterize the sedimentary environments in which the sediments were formed	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[HML3-U08] is able to 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	is able to independently use available sources on the geology of the Baltic Sea, both in print and electronic formats, and to evaluate, critically analyze, synthesize, and correctly interpret the information obtained	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[HML3-U14] is able to use the applicable terminology in presenting and discussing problems related to the field of study	is able to use appropriate terminology when presenting and discussing issues related to the geology of the Baltic Sea	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[HML3-U16] is able to 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	is able to plan, both independently and as part of a team, conduct research, and compile the results in the form of a report using data from the literature	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[HML3-U18] is able to work individually and in team, manage the work of the team, in particular comply with health and safety regulations and ergonomics	is able to work individually and as part of a team	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work

Subject contents

Introduction to laboratory methods for sediment analysis. 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
colloquium	51.0%	90.0%
written report	51.0%	10.0%

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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