

Subject card

Subject name and code	Petrography of Quaternary sediments - laboratory exercises, PG_00117835						
Field of study	Oceanography						
Date of commencement of studies	October 2025		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	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		1.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Department of Geomorphology and Quaternary Geology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Piotr Woźniak				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	15.0	0.0	0.0	15
	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	15		5.0		15.0	35
Subject objectives	Familiarization with the methodology and methods of petrographic research of Quaternary sediments. Presentation of the basic characteristics of indicator rocks allowing for their identification. Familiarization with the possibilities of using petrographic studies in comprehensive studies of Quaternary sediments.						
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 basic and advanced methods of petrographic research used in comprehensive studies of Quaternary sediments.		[SW2] presentation/project/paper/report		
	[OCEANMU2-U04] is ready to develop in an analytical and synthetic way research and analysis results and based on them creating conclusions		Is able to analytically and synthetically develop the results of research and analysis of Quaternary sediments and on their basis make correct conclusions.		[SU2] presentation/project/paper/report		
	[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 independently plan and carry out research, both in the field and in the laboratory, using appropriately selected measurement and analytical techniques in the field of petrographic research methods of Quaternary sediments.		[SU5] implementation of a problem task		

Subject contents	1. Principles of sampling and initial preparation of gravel samples for petrographic analyses and supplementary analyses in the field. 2. Macroscopic features of indicator erratic rocks. 3. Recognition of selected indicator erratic rocks. 4. Analysis of the relationship between macroscopic features of clasts and petrographic type.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Implementation of the problem task	51.0%	35.0%
	Presentation/project/oral speech/ report	51.0%	65.0%
Recommended reading	Basic literature	Czubla P., 2001, Eratyki fennoskandzkie w utworach czwartorzędowych Polski Środkowej i ich znaczenie stratygraficzne, Acta Geographica Lodziensia, 80: 1-174. Harasimiuk M., Terpiłowski S. red., 2003, Analizy sedymentologiczne osadów glacygenicznych, Wyd. UMCS, Lublin. Mycielska-Dowgiałło E. i Rutkowski J. red., 2007, Badania cech teksturalnych osadów czwartorzędowych..., Wyd SWPR, W-wa. Smed P., 1994, Steine aus dem Norden, Gebrüder Borntraeger, Berlin Stuttgart. Schulz W., 2003, Geologischer Führer für den norddeutschen Geschiebesammler, cw Verlagsgruppe, Schwerin. Zandstra J. G., 1999, Platenatlas van noordelijke kristallijne gidsgesteenten, Backhuys, Leiden.	
	Supplementary literature	Benn D.I., Ballantyne C.K., 1993, The description and representation of particle shape. Earth Surf. Proc. Landf., 18: 665-672. Czubla P., Gałazka D., Górka M., 2006, Eratyki przewodnie w glinach morenowych Polski, Prz. Geol., 54, 4: 352-362. Górka M., 2000, Advantages and disadvantages of petrographical analyses of glacial sediments, Geol. Quart., 43 (2): 241-250. Ogren D.E, Waag C.J., 1986, Orientation of cobble and boulder beach clasts. Sedimentary Geology, 47: 69-76.	
	eResources addresses		
	Example issues/ example questions/ tasks being completed	Prepare a set of indicator erratic rocks based on the specimens collected on the beach. Analyze the relationships between clast morphology and its petrographic type.	
Work placement	Not applicable		

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