University of Gdańsk

Subject card

Subject name and code	Petrography of Quaternary Sediments - lecture, PG_00205023		
Field of study	Oceanography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
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	exam
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Piotr Woźniak, prof. UG	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	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	1.0	9.0	25

Subject objectives

Familiarization with the methodology and methods of petrographic research of Quaternary sediments. Presentation of the basic characteristics of indicator erratic 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.	[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	Knows and understands the complex relationships between inanimate components of the environment affecting the diversity of the petrographic composition of Quaternary sediments.	[SW4] test/exam - oral or written

Subject contents	1. Evolution of petrographic research methods of Quaternary sediments. 2. Petrography of non-glacial Quaternary sediments. 3. Factors determining the diversity of the petrographic composition of glacial sediments. 4. Methods of analysis of the petrographic composition of glacial sediments. 5. Indicator erratic rocks in the study of glacial sediments. 6. Problems of interpretation of petrographic analysis results. 7. Analyses accompanying petrographic studies of Quaternary sediments. 8. Archaeopetrographic research. 9. Erratic boulders as research and geotourist objects.
Prerequisites and co-requisites	

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
test/egzam	51.0%	100.0%

Recommended reading	Basic literature	Benn D. I., Evans D. J. A., 1998, Glacier & glaciation, Arnold, London. Bennet M., Glasser N. F., 2009, Glacial geology: ice sheets and landforms, John Wiley & Sons, Chichester. 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 glacigenicznych, Wyd. UMCS, Lublin. Król D., Woźniak P. P., Zakrzewski L., 2004, Kamienie szwedzkie w kulturze i sztuce Pomorza, Muzeum Archeologiczne w Gdańsku, Gdańsk. Mycielska-Dowgiałło E. i Rutkowski J. red., 2007, Badania cech teksturalnych osadów czwartorzędowych..., Wyd SWPR, W-wa. Tylmann K., Woźniak P.P., Rinterknecht V. R., 2018, Erratics selection for cosmogenic nuclide exposure dating an optimization approach. Baltica, 31 (2): 100114. Smed P., 1994, Steine aus dem Norden, Gebrüder Borntraeger, Berlin Stuttgart. Schulz W., 2003, Geologischer Führer für den norddeutschen Geschiebesammler, cw Verlagsgruppe, Schwerin. Woźniak P.P., Tylmann K., Kobiela A., 2015, Głazy narzutowe Trójmiejskiego Parku Krajobrazowego potencjał badawczy i geoturystyczny, Przegląd Geologiczny, 63, 4: 256262. Zandstra J. G., 1999, Platenatlas van noordelijke kristallijne gidsgesteenten, Backhuys, Leiden.
	Supplementary literature	Czubla P., Gałązka D., Górska M., 2006, Eratyki przewodnie w glinach morenowych Polski, Prz. Geol., 54, 4: 352-362. Górska M., 2000, Advantages and disadvantages of petrographical analyses of glacial sediments, Geol. Quart., 43 (2): 241-250.
	eResources addresses	

Example issues/ example questions/ tasks being completed	Provide the distinguishing features of the selected indicator erratic rock. Explain the effect of petrographic type on clast morphology.
Work placement	Not applicable

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