University of Gdańsk

Subject card

Subject name and code	Geological cartography - lecture, PG_00191292						
Field of study	Geology						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2027/2028			
Education level	Bachelor's studies		Subject group	Obligatory subject group in the field of study 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	4		ECTS credits	1.0			
Learning profile	academic		Assessment form	exam			
Conducting unit	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Robert Sokołowski				
	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	Develop the ability to read maps, geological cross-sections and other cartographic studies and relate them to the evolution and geological structure of selected regions.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOLL3_W03] knows and identifies paleontological, mineralogical, petrographic and structural objects using appropriate methods	knows and identifies structural objects using appropriate methods of geological mapping	[SW4] test/exam - oral or written
[GEOLL3_W06] knows statistical and IT tools as well as the principles of preparing engineering and geological documentation and cartographic materials	is familiar with statistical and computer tools as well as with the principles of preparation of geological documentation and mapping materials	[SW4] test/exam - oral or written
[GEOLL3_U04] is able to use specialized computer software and mathematical and statistical methods in the analysis of geological data	is able to use specialised computer software and mathematical and statistical methods in the analysis of geological data in geological cartography	[SU4] test/exam - oral or written
[GEOLL3_U06] is able to identify geological objects and combine them with geological processes and anthropogenic environmental transformations	is able to identify geological objects on the basis of methods of geological cartography and link them to geological processes and anthropogenic transformations of the environment	[SU4] test/exam - oral or written
[GEOLL3_W04] knows and understands phenomena and processes occurring in the past and today in the interior of the Earth and on its surface, defines the methods of how to study them	knows and understands past and present phenomena and processes in the Earth's interior and on its surface based on methods of geological cartography	[SW4] test/exam - oral or written
[GEOLL3_U03] is able to use source information in Polish and English, including archival and electronic databases, in the field of geological issues	is able to use source information, in Polish and English, including archival and electronic databases, in the field of geological cartography	[SU4] test/exam - oral or written
[GEOLL3_K03] is willing to exercise caution and criticism in receiving information from scientific literature, the Internet and other media related to natural sciences	is prepared to exercise caution and criticism in accepting information from the scientific literature, the Internet and other media relating to geological cartography	[SK1] oral statement/conversation/ discussion
[GEOLL3_W05] knows the structure and geological development of selected regions in Poland and in the world	knows the structure and geological development of selected regions in Poland	[SW3] text preparation/written work

Subject contents

Principles of documenting exposures.
Separation of units and lithological boundaries.
Creation of geological profiles and cross-sections.
Interpretation of aerial and satellite patterns.
Application of GPS in geological cartography.
Creation and use of databases.
Principles of geological mapping.
Instruction in geological mapping.
Geological depth mapping.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written exam	51.0%	100.0%

Recommended reading

Basic literature

Compton R. R., 1985. Geology in the field, John Wiley & Sons, New York
Koziar J., 1980. Kompas geologiczny. Technika i analiza pomiarów, Uniwersytet Wrocławski, Wrocław

Labus M., Labus K., 2008. Podstawy geologii strukturalnej i kartografii geologicznej, Wyd. Politechniki Śląskiej, GliwiceSłowański W., Kotański Z., Hakenberg M., Królikowski C., Szczypa S., 1989. Kartografia geologiczna, Wyd. Geologiczne, WarszawaInstrukcja opracowania i wydania Szczegółowej mapy geologicznej Polski w skali 1: 50 000. 1996. PIG, Warszawa

	Supplementary literature	Ciołkosz A., Miszalski J., Olędzki J. R., 1978. Interpretacja zdjęć lotniczych, Wyd. Naukowe PWN, Warszawa Floyd F., Sabins, J.R., 1987. Remote Sensing, Principles and Interpretation, W. H. Freeman and Company, New York Kotański Z., 1987. Geologiczna kartografia wgłębna, Wyd. Geologiczne, Warszawa Nieć M., 1990. Geologia kopalniana, Wyd. Geologiczne, Warszawa Roberts J.L., 1982. Introduction to geological maps and structures, Pergamon press., Oxford Ozimkowski W., Rubinkiewicz J., Mastella L., 2007. Instrukcja Kursu Kartowania Geologicznego, Uniwersytet Warszawski Zydorowicz T., 1991. Interpretacja map geologicznych, Warszawa USTAWA z dnia 9 czerwca 2011r. Prawo geologiczne i górnicze
	eResources addresses	
Example issues/ example questions/ tasks being completed	Surface mapping methods Types of geological maps	
Work placement	Not applicable	

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