University of Gdańsk

Subject card

Subject name and code	Geological cartography - exercises, PG_00091113		
Field of study	Geology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
Education level	Bachelor's studies	Subject group	Obligatory subject group 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	3.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Włodzimierz Narloch	
	Teachers	dr Włodzimierz Narloch	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	45.0	0.0	0.0	45

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	45	10.0	20.0	75

Subject objectives

Learning the methodology of preparing maps, profiles, geological cross-sections and other cartographic studies

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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	[SU5] implementation of a problem task
[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_U06] is able to identify geological objects and combine them with geological processes and anthropogenic environmental transformations	is able to map geological objects and link them to geological processes and anthropogenic transformations of the environment	[SU5] implementation of a problem task
[GEOLL3_W03] knows and identifies paleontological, mineralogical, petrographic and structural objects using appropriate methods	knows and identifies geological objects using appropriate methods of geological mapping	[SW5] implementation of a problem task

Subject contents

Geological layer, course and fall of a rock layer, bedrock, floor, thickness of a layer, outcrop of a rock layer.
Structural horizon, intersection line, intersection modulus.
Geological profile, geological cross-section, actual and apparent collapse.
Representation of geological structures on geological maps and cross-sections.
Borehole documentation.

Prerequisites and co-requisites

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Pass mark for all cartographic works. Assignment of a final mark based on the average of the marks received for the individual works.</td><td>66.0%</td><td>100.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Alexandrowicz S., 1959. Atlas do ćwiczeń z kartografii geologicznej, Wyd. Geologiczne, Warszawa
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</td></tr>
<tr><td>Supplementary literature</td><td>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</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Analysis of an area of plate geological structure by making a geological cross-section, drilling profile in the aforementioned point, synthetic profile and description of geological structure

Analysis of the geological structure including calculation of the outcrop area of the deposit layer, its volume and reserves of the selected type of mineral resource</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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