GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Geology, PG_00059254		
Field of study	Civil Engineering		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2022/2023
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study
Mode of study	Part-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	1	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Geotechnical and Hydraulic Engineering -> Faculty of Civil and Environmental Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Małgorzata Pruszkowska-Caceres	
	Teachers	dr hab. inż. Beata Jaworska-Szulc dr hab. Małgorzata Pruszkowska-Caceres dr inż. Maria Przewłócka, doc. PG	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	15.0	0.0	30

E-learning hours included: 0.0

Geologia - Podstawy nauk o ziemi 2022/2023 B+IS niestacjonarne - Moodle ID: 23182
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=23182

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	30	5.0	65.0	100

Subject objectives

Student gets acquainted with internal and external geological processes, their influence on abiotic environment of men; ability to interpret geological maps and cross-sections.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W01] Demonstrate knowledge and understanding of mathematics as well as sciences and engineering disciplines underlying civil engineering at a level necessary to achieve the other programme outcomes.	General understanding of issues specified in the Geology learning program (Bases of the Earth Science), Quaternary Geology and Geomorphology in particular. Student gets acquainted with internal and external geological processes, their influence on abiotic environment of men; ability to interpret geological maps and cross-sections.	[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects
[K6_U01] Apply knowledge and understanding of mathematics as well as sciences and engineering disciplines underlying civil engineering to solve engineering problems and issues.	Student attains basic knowledge on geotechnical and geological engineering documentations principles; student knows how to use current methods of subsoil study. Student describes internal and external geological processes; explains natural geological threats; interprets the influence of geological processes.	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU5] Assessment of ability to present the results of task

Subject contents

Lecture: geological time, the Earths origin, the Earths layers, basis of stratigraphy; internal processes (volcanism, plutonism, metamorphism); plate tectonic theory; basis of tectonics; isostasy; the rock cycle; external processes (weathering, erosion, mass wasting); glacial, stream, marine, eolian processes.

Tutorials: minerals (definition, physical properties, origin, identification of basic minerals), igneous, sedimentary, metamorphic rocks (origin, mineral composition, textures, classification, identification); geological intersection, geological maps analysis, geological cross-section drawing

Prerequisites and co-requisites	geography, chemistry level of secondary school	
Assessment methods and criteria		

Subject passing criteria	Passing threshold	Percentage of the final grade
practical exercises	60.0%	50.0%
colloquiums	60.0%	50.0%

Recommended reading	Basic literature	1.Mizerski W: Geologia dynamiczna. Wyd. Naukowe PWN,Warszawa 2006 (2004) 2. Książkiewicz M: Geologia dynamiczna. Wyd. Geologiczne, Warszawa 1979 3. Jaroszewski W: Przewodnik do ćwiczeń z geologii dynamicznej. Wyd. Geologiczne, Warszawa 1986 4. Czubla P, Mizerski W,Świerczewska-Gładysz E: Przewodnik do ćwiczeń z geologii. Wyd. Naukowe PWN, W-wa 2004
	Supplementary literature	1. Jaroszewski W,Marks L, Radomski A: Słownik geologii dynamicznej. Wyd. Geologiczne, Warszawa 1985 2. Roniewicz P: Przewodnik do ćwiczeń z geologii dynamicznej. Polska Agencja Ekolog., Warszawa 1999 3. Thompson &Turk: Modern Physical Geology Saunders College Publishing, 1996
	eResources addresses	
Example issues/ example questions/ tasks being completed	Indicate geological events occuring at divergent plate boundaries What are the main rock forming minerals of gabbro; indicate the stage of magma crystallization for this rock. Describe conditions of granite forming What is the subduction zone ? What are the main processes responsible for the Earth relief?	
Work placement	Not applicable	