



Subject card

Subject name and code	Geology, PG_00059254						
Field of study	Civil Engineering						
Date of commencement of studies	October 2026	Academic year of realisation of subject				2026/2027	
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 -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Małgorzata Pruszkowska-Caceres					
	Teachers						
Lesson types	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						
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	<p>Course content – lecture 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.</p> <p>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</p>						
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	<p>Indicate geological events occurring at divergent plate boundaries</p> <p>What are the main rock forming minerals of gabbro; indicate the stage of magma crystallization for this rock.</p> <p>Describe conditions of granite forming</p> <p>What is the subduction zone ?</p> <p>What are the main processes responsible for the Earth relief?</p>		
Practical activities within the subject	Not applicable		

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