



Subject card

Subject name and code	Geology, PG_00059254						
Field of study	Civil Engineering						
Date of commencement of studies	October 2023	Academic year of realisation of subject			2023/2024		
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. 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						
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_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.			[SU5] Assessment of ability to present the results of task [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment		
	[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.			[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge		
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
	colloquiums	60.0%	50.0%
	practical exercises	60.0%	50.0%
Recommended reading	Basic literature	<p>1. Mizerski W: Geologia dynamiczna. Wyd. Naukowe PWN, Warszawa 2006 (2004)</p> <p>2. Książkiewicz M: Geologia dynamiczna. Wyd. Geologiczne, Warszawa 1979</p> <p>3. Jaroszewski W: Przewodnik do ćwiczeń z geologii dynamicznej. Wyd. Geologiczne, Warszawa 1986</p> <p>4. Czubla P, Mizerski W, Świerczewska-Gładysz E: Przewodnik do ćwiczeń z geologii. Wyd. Naukowe PWN, W-wa 2004</p>	
	Supplementary literature	<p>1. Jaroszewski W, Marks L, Radomski A: Słownik geologii dynamicznej. Wyd. Geologiczne, Warszawa 1985</p> <p>2. Roniewicz P: Przewodnik do ćwiczeń z geologii dynamicznej. Polska Agencja Ekolog., Warszawa 1999</p> <p>3. Thompson & Turk: Modern Physical Geology Saunders College Publishing, 1996</p>	
	eResources addresses	<p>Adresy na platformie eNauczenie:</p> <p>Geologia - Podstawy nauk o ziemi - Moodle ID: 31671 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=31671</p>	
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>		
Work placement	Not applicable		