University of Gdańsk

Subject card

Subject name and code	Historical geology and stratigraphy - lecture, PG_00191301						
Field of study	Geology						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2028/2029			
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	3		Language of instruction	Polish			
Semester of study	5		ECTS credits	3.0			
Learning profile	academic		Assessment form	exam			
Conducting unit	Laboratory of Marine Geology -> Department of Chemical Oceanography and Marine Geology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Małgorzata Witak				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	45.0	0.0	0.0	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		1.0		29.0	75
Subject objectives	Understanding the mechanisms of evolution of the lithosphere, hydrosphere, atmosphere and biosphere throughout Earth's history						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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 against the background of changes in the configuration of land and seas in the world	[SW4] test/exam - oral or written
[GEOLL3_W02] knows and understands the terminology appropriate in science and natural sciences	knows and understands terminology specific to stratigraphy and historical geology	[SW4] test/exam - oral or written
[GEOLL3_U05] can reconstruct the history of geological development of selected regions in Poland and in the world on the basis of maps, cross-sections and exposures in the field	can reconstruct the history of geological development of selected regions in Poland from the Precambrian to the present day	[SU4] test/exam - oral or written
[GEOLL3_U02] has the skill of analytical and synthetic way of reasoning leading to correct inference based on the results obtained or the facts presented	has the ability to reason analytically and synthetically leading to correct conclusions in stratigraphy and historical geology based on results obtained or facts presented	[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, defines methods for investigating the relative and absolute age of geological events	[SW4] test/exam - oral or written
[GEOLL3_W01] knows and understands the basic natural phenomena and explains their course in relation to geological processes	knows and understands basic natural phenomena and explains how they relate to geological processes from the Hadeic to the present day	[SW4] test/exam - oral or written
[GEOLL3_W03] knows and identifies paleontological, mineralogical, petrographic and structural objects using appropriate methods	knows and identifies palaeontological and structural objects using appropriate macroscopic methods	[SW4] test/exam - oral or written

Subject contents

Historical geology in comparison with other geological sciences. Main concepts and definitions in historical geology. Chronostratigraphic chart. Geochronological methods and their application to determining absolute age. Methods of relative age studies (chronostratigraphy, lithostratigraphy and biostratigraphy). Evolution of fauna and flora from the Precambrian to the present day. Sedimentary-diastrophic cycles in Poland against the background of Europe and the world.

Prerequisites and co-requisites

Assessment methods and criteria

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

Recommended reading

Basic literature	Orłowski S. Szulczewski M. 1990. Geologia historyczna. Cz. I, Wyd. Geologiczne, Warszawa Mizerski W., Orłowski S. 2005. Geologia historyczna dla geografów, Wyd. Naukowe PWN, Warszawa Racki G., Narkiewicz M., 2006, Polskie Zasady Stratygrafii, PIG, Warszawa.
Supplementary literature	Gould S. J. (red.), 1998. Dzieje życia na Ziemi, Świat Książki, Warszawa Schopf W. J., 2002. Kolebka życia: o narodzinach i najstarszych śladach życia na Ziemi, Wyd. Naukowe PWN, Warszawa Stanley S. M., 2002. Historia Ziemi, Wyd. Naukowe PWN, Warszawa van Andel, T.H., 1997. Nowe spojrzenie na starą planetę, Wyd. Naukowe PWN, Warszawa
eResources addresses	

Example issues/ example questions/ tasks being completed

1. List the fossils of fauna and flora characteristic of the Devonian

2. Present the methods of absolute age that can be used in determining the age of Precambrian events

3. Describe the palaeogeography of the Earth in the Jurassic

4. Explain the evolution of the Kielce region in the Paleozoic Era

Work placement

Not applicable

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