

Subject card

Subject name and code	Marine Paleoenvironments and Methods of Investigation - lecture, PG_00205336						
Field of study	Oceanography						
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 Optional subject group 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			2.0		
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	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
	Additional information: lecture with multimedia presentation						
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		2.0		18.0	50
Subject objectives	Understanding of the mechanisms of evolution of the lithosphere, hydrosphere, atmosphere and biosphere. The ability to apply stratigraphic methods in determining the age of geological objects and processes. To be able to analyse the causes and effects of sedimentary-diastrophic cycles in Poland.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[OCEANL3-U01] is able to use the current scientific terminology in the field of oceanography in various forms of expression	is able to use the applicable scientific terminology in the field of stratigraphy and historical geology in various forms of expression	[SU4] test/exam - oral or written
	[OCEANL3-U12] is able to systematically expand and update oceanographic knowledge and enhance professional qualifications	is able to systematically expand and update his/her knowledge of historical geology and improve professional qualifications	[SU4] test/exam - oral or written
	[OCEANL3-W01] has an advanced knowledge and understanding of the terminology used in oceanography and related exact and natural sciences (in Polish and a selected foreign language)	has an advanced knowledge and understanding of the terminology used in stratigraphy and historical geology	[SW4] test/exam - oral or written
	[OCEANL3-W02] has a broad knowledge and understanding of physical, biological, chemical, and geological processes and phenomena occurring in aquatic environments, with particular emphasis on the marine environment	knows and understands to an advanced level the interrelationship between animate and non-living elements of the aquatic palaeoenvironment, identifies and correctly describes basic geological phenomena and explains their course in relation to past marine processes	[SW4] test/exam - oral or written
	[OCEANL3-W05] has an advanced knowledge of techniques, research methods, and tools (mathematical, statistical, and computational) used by oceanographers to describe and interpret processes and phenomena occurring in the marine environment	knows at an advanced level the techniques, research methods and tools and understands the importance of basic research methods for the determination of relative and absolute ages of geological events and is able to interpret them correctly in relation to exogenous processes in the past	[SW4] test/exam - oral or written
[OCEANL3-U03] is able to process, describe, and present results, and draw conclusions	is able to identify fossils, sedimentary rocks and tectonic structures and, on their basis, to make correct inferences about exogenous processes in the past	[SU4] test/exam - oral or written	
Subject contents	Importance of palaeoenvironmental change studies for the natural sciences. Terminology used in marine sediment stratigraphy. Methods of relative age studies (chronostratigraphy, lithostratigraphy and biostratigraphy). Geochronological methods for age determination of geological objects and processes. Causes and consequences of changes in marine palaeoenvironments in Poland from the Precambrian to the present day.		
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. Geol., Warszawa Mizerski W., Orłowski S. 2005. Geologia historyczna dla geografów. Wydawnictwo Naukowe PWN, Warszawa	
	Supplementary literature	Racki G., Narkiewicz M., 2006, Polskie Zasady Stratygrafii, PIG, Warszawa Stanley S. M., 2002. Historia Ziemi, Wydawnictwo 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. Explain the importance of fossils in stratigraphy 2. List the basic lithostratigraphic units 3 Explain the changes in land and sea configuration in the early Palaeozoic		
Work placement	Not applicable		

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