

**Subject card**

<b>Subject name and code</b>	Sedimentary basin analysis - exercise, PG_00091077						
<b>Field of study</b>	Geology						
<b>Date of commencement of studies</b>	October 2024	<b>Academic year of realisation of subject</b>			2026/2027		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	3	<b>Language of instruction</b>			Polish Polish		
<b>Semester of study</b>	5	<b>ECTS credits</b>			1.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			credit		
<b>Conducting unit</b>	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Robert Sokołowski				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	0.0	15.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	15		7.0		10.0	32
<b>Subject objectives</b>	Ability to analyse and reconstruct the development of facies within sedimentary basins. Ability to identify sequences of depositional systems and stratigraphic sequences and to analyse the tectonic development of basins.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[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	Potrąfi na podstawie uzyskanych wyników badań i analizy materiałów archiwalnych rekonstruować rozwój wybranych fragmentów basenów sedymentacyjnych	[SU5] implementation of a problem task
	[GEOLL3_K01] is willing to plan and implement, individually or as a team, the next stages of the entrusted task, take responsibility for its results, effectively cooperate in the team by performing various roles in it	Be able to plan the next steps in a geological investigation individually or in teams, interact effectively in research teams in a variety of functions and take responsibility for the completion of assigned tasks.	[SK8] observation of student's independent or team work
	[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	Be able to correctly identify the main transgressive-regressive processes and cycles within sedimentary basins and define relevant research methods.	[SW5] implementation of a problem task
	[GEOLL3_W03] knows and identifies paleontological, mineralogical, petrographic and structural objects using appropriate methods	Knows and identifies the structural elements and major depositional environments within sedimentary basins based on modern research methods from different fields of geology.	[SW5] implementation of a problem task
[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 analyse facies and synthesise geological data leading to the correct identification of selected sedimentary basin elements.	[SU5] implementation of a problem task	
Subject contents	Distinction of facies, interpretation of depositional mechanisms and facies succession Lithostratigraphic correlation of the profiles Analysis of variation within phases Delineation of sequences of depositional systems and stratigraphic sequences Analysis of tectonic development of basins		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Pass thesis - a case study	51.0%	100.0%
Recommended reading	Basic literature	Miall, D., 2000. Principles of Sedimentary Basin Analysis, Springer-Verlag, Heidelberg Catuneanu, O., 2006. Principles of sequence stratigraphy, Elsevier Reading H.G. (red.), 2003. Sedimentary environments: processes, facies and stratigraphy, Blackwell Science Allen P.A., Allen J.R., 2005. Basin analysis. Principles and application, Blackwell Miall A.D., 2010. The Geology of Stratigraphic Sequences. Second Edition, Springer-Verlag, Heidelberg	
	Supplementary literature	Nittrouer C.A., Austin J.A., Field M.E., Kravitz J.H., Syvitski J.P.M., Wiberg P.L., 2007. Continental Margin Sedimentation: From Sediment Transport to Sequence Stratigraphy, Wiley-Blackwell Nichols G., 2007. Sedimentology and Stratigraphy. Second edition, Wiley-Blackwell	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Development of a section of the Zechstein Basin based on drill profiles together with lithological analysis		
Work placement	Not applicable		

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