

Subject card

Subject name and code	Field exercises - dynamic geology, PG_00091108						
Field of study	Geology						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		7.0		
Learning profile	academic		Assessment form		credit		
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 Michalina Dzwoniarek-Konieczna				
	Teachers		dr Michalina Dzwoniarek-Konieczna				
			dr Włodzimierz Narloch				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	80.0	0.0	0.0	0.0	80
	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	80		20.0		80.0	180
Subject objectives	Familiarizing students with the principles of geological field work (preparing of field documentation and sampling and identifying them), as well as carrying out proper interpretation of geological processes on the basis of observations, measurements and analysis of geological maps. To use identified structures, minerals, rocks and fossils in geological interpretation.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[GEOLL3_K02] is willing to take full responsibility in the field of actions taken and to comply with the principles of professional ethics and intellectual honesty, is aware of the importance of a professional approach in every situation	adheres to the principles of mutual cooperation, makes decisions, and takes responsibility for them	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work
	[GEOLL3_W05] knows the structure and geological development of selected regions in Poland and in the world	knows the geological structure and development of the Holy Cross Mts.	[SW4] test/exam - oral or written [SW5] implementation of a problem task
	[GEOLL3_U10] is able to work individually and cooperate in laboratory and field groups performing various functions in them and performing various tasks	is able to work independently and cooperate in a group performing various functions, among other by preparing interpretations of the processes and geological development of the study area	[SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[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 geological development within the Holy Cross Mountains based on field observations and knowledge of rocks and fossils	[SU4] test/exam - oral or written [SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[GEOLL3_W01] knows and understands the basic natural phenomena and explains their course in relation to geological processes	knows and understands basic geological phenomena, can explain geological processes based on interpretation of results from own observations	[SW4] test/exam - oral or written [SW5] implementation of a problem task
	[GEOLL3_U06] is able to identify geological objects and combine them with geological processes and anthropogenic environmental transformations	can identify rocks, fossils and structural elements in the field and relate them to geological processes and anthropogenic transformations of the environment	[SU4] test/exam - oral or written [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[GEOLL3_K05] is willing to comply with the principles of occupational safety and health, takes care of specialized equipment entrusted to them, is aware of the risk connected with the performed work	applies basic health and safety rules in field work	[SK8] observation of student's independent or team work
	[GEOLL3_W03] knows and identifies paleontological, mineralogical, petrographic and structural objects using appropriate methods	can identify in the field of the rocks minerals and paleontological specimen, and structural elements in geological exposures	[SW1] oral statement/conversation/discussion [SW5] implementation of a problem task
	[GEOLL3_U01] is able to apply basic measurement and analytical techniques in the field and in the laboratory, plans to conduct research and measurements	is able to make a basic measurements using a geological compass and prepare a documentation of field work, is able to use basic methods of macroscopic identification of rocks and minerals	[SU6] demonstration of practical skills [SU8] 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	knows and understands the phenomena and processes occurring inside of the Earth and on its surface, both in the past and in the present, can plan the basic methods of their study	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion
	[GEOLL3_W08] knows the basic principles of occupational health and safety, legal regulations conditioning geological and engineering activities	knows basic health and safety rules in field work	[SW1] oral statement/conversation/discussion
	[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	plans and implements, individually or in teams, the activities of the assigned problem task, is able to explain and take responsibility for its results	[SK5] implementation of a problem task [SK8] observation of student's independent or team work

Subject contents	Course issues: familiarize the student with the geological structure of selected areas preparing geological documentation using simple methods identification of rocks, minerals and fossils identification of geological structures developing geological thinking through field-based observations Selected topics, based on selected sites (depending on its availability): • Caledonian sedimentary-diastrorphic cycle in the Kielce unit (Kierdonka valley - Bardo Stawy) • Variscan sedimentary-diastrorphic cycle in the Chęciny unit (Chęciny valley Zelejowa, Czerwona Mt., Panek) • Devon of the Chęciny Anticline and the Rzepka Syncline (Zamkowa Mt., Rzepka Mt) • Southern part of the Chęciny anticline and the Permian-Mesozoic margin (Zamkowa Mt., Wrzosey, Zaklikowa Mt., Czubata Mt., Leśna Mt., Nida) • Sedimentology and tectonics of Devonian and Carboniferous rocks in the Kielce unit and Permian and Triassic rocks in the southwestern margin of the Holy Cross Mts (Ostrówka, Gałęzice, Kopanina Mt.) • Sedimentology, tectonics and clastics of Devonian rocks of the Kielce unit and Jurassic of the Permian-Mesozoic margin (Miedzianka, Morawica) • Sedimentology and tectonics of Paleozoic rocks in the Kielce unit (Kowala and to choose: Daleszyce (ems, plakoderm sandstones, imprints of armored fish shields and spines) or Mójcza (Ordovician, calcareous sedimentation, stratigraphic condensation, facies variation) • Formation of Cambrian, Devonian and Permian of the Lysogory unit (Wiśniówka Bukowa Mt., Kajetanów) • Sedimentology and tectonics of the main range in the Lysogory unit (to choose: Św. Krzyż - Słupia Nowa - Św. Katarzyna (entrance to Łysica) or Kamecznica Podmachocicka Lubrzanka gorge - Św. Krzyż) • Northern part of the Permian-Mesozoic margin (to choose: Gromadzice - Kunów -Doły Biskupie or Tumlin i Sołyków) • Geology in Kielce - Kielce geological reserve (to choose: Śluchowice - Kadzielnia - Muzeum Geologiczne PGI Geological Museum or Karczówka - Wietrznia - Geopark Kielce) • Southern part of the Permian-Mesozoic margin and the Polish Carpathian Foredeep (Zajęcza Mt. - Skorocice Chotel Czerwony - Busko Zdrój)		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	colloquium	51.0%	40.0%
	field notebook	51.0%	30.0%
	practical exercises	51.0%	30.0%
Recommended reading	Basic literature Barski M., i in., 2012 - Góry Świętokrzyskie : 25 najważniejszych odsłoneń. Wyd. UW, Warszawa Czubla P., Mizerski W., Świerczewska-Gładysz E., 2018 Przewodnik do ćwiczeń z geologii. Wydawnictwo Naukowe PWN, Warszawa. Jaroszewski W. / Roniewicz P. (red.) 1986 - 1999: Przewodnik do ćwiczeń z geologii dynamicznej. Warszawa Kotański Z., 1959 - Przewodnik geologiczny po Górach Świętokrzyskich, Wyd. Geologiczne, Warszawa Stupnicka E., Stempień-Sałek M., 2001 - Poznajemy Góry Świętokrzyskie wycieczki geologiczne, Wyd. Naukowe PWN, Warszawa Stupnicka E., Stempień-Sałek M., 2016 Geologia regionalna Polski. Wyd. UW, Warszawa Filonowicz P., 1973 - Szczegółowa mapa geologiczna Polski, ark. KIELCE (815), Wyd. PIG, Warszawa		

	Supplementary literature	Coe A.L., 2010 Geological Field Techniques.Wiley-Blackwell Mizerski W., 2020 - Geologia dynamiczna. Wydawnictwa Naukowe PWN, Warszawa Olszewska Nejbert i in. , 2016 Materiały konferencyjne, 6. Konferencja sedimentologiczna POKOS, Chęciny Skompski S., Żylińska A., 2006- Materiały konferencyjne 77. Zjazdu Naukowego PTG, Ameliówka Skompski S., Mizerski W., 2015 - Materiały konferencyjne 84. Zjazdu Naukowego PTG, Chęciny
	eResources addresses	
Example issues/ example questions/ tasks being completed	e.g. - geological cross-section through the Chęciny Anticline - depositional environments of sedimentary rocks - stream capture - miocene coastline	
Work placement	Not applicable	

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