University of Gdańsk

Subject card

Subject name and code	Field classes - Dynamic geology I, PG_00201399		
Field of study	Geology		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
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	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		

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	5.0	90.0	175

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_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_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_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
[GEOLL3_W01] has an advanced knowledge and understanding of the natural processes and phenomena occurring within the Earth system and explains their mechanisms in relation to geological processes	knows and understands 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_W03] knows and identifies paleontological, mineralogical, petrographic and structural objects at an advanced level 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_W04] knows and understands at an advanced level phenomena and processes occurring in the past and present 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_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_W05] has advanced knowledge of the structure and geological development of selected regions in Poland and around 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_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_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

Subject contents	Course issues: familiarize the student with the geological structure of selected areas familiarizing students with sedimentological, tectonic, erosional and other geodynamic processes forming the region preparing geological documentation using simple methods identification of rocks, minerals, fossils and geological structures interpretation of sedimentary environments developing geological thinking through field-based observations Selected topics, based on selected sites (depending on its availability): • Caledonian sedimentary-diastrophic cycle in the Kielce unit (Kierdonka valley - Bardo Stawy) • Variscan sedimentary-diastrophic cycle in the Chęciny unit (Chęciny valley Zelejowa, Czerwona Mt., Szewce) • 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., Wrzosy, 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, Daleszyce) • 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 (Kamecznica Podmąchocicka Lubrzanka gorge - Św. Krzyż) • Northern part of the Permian-Mesozoic margin (Tumlin i Sołtyków) • Geology in Kielce (Śluchowice - Kadzielnia - Muzeum Geologiczne PGi Geological Museum) • Southern part of the Permian-Mesozoic margin and the Polish Carpathian Foredeep (Zajęcza Mt. - Skorocice, Chotel Czerwony Śladków Mały)
Prerequisites and co-requisites	
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
practical exercises	51.0%	40.0%
colloquium	51.0%	60.0%

Recommended reading	Basic literature	J Barski M., i in., 2012 - Góry Świętokrzyskie : 25 najważniejszych odsłonięć. 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 sedymentologiczna 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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