University of Gdańsk

Subject card

Subject name and code	Field classes - Dynamic geology II, PG_00201400		
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			
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_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 and in the broader context of the region	[SW4] test/exam - oral or written [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 forming Holy Cross Mts area	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[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 outcrops and in local architecture	[SW1] oral statement/ conversation/discussion [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, weathering-erosion forms and evidences of past mining 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
[GEOLL3_U01] is able to apply basic measurement and analytical techniques in the field and in the laboratory, plans to conduct research and measurements	makes 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
[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 Mts area based on field observations and identification of rocks and fossils	[SU4] test/exam - oral or written [SU5] 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 in problem-solving tasks, e.g., interpreting processes and geological development of the study area	[SU5] implementation of a problem task [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_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 the activities of the assigned problem task, is able to explain and take responsibility for its results	[SK5] implementation of a problem task
[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	can explain geological processes based on interpretation of results from own observations	[SW4] test/exam - oral or written [SW5] implementation of a problem task

<table>
<tr><td>Subject contents</td><td>course issues:
familiarize the student with the geological structure of selected areas

preparing geological documentation using simple methods
identification of rocks, minerals, fossils and geological structures
familiarization with mineral resources exploited in the Holy Cross Mts. region

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 (Rzepka Mt, Zamkowa Mt. - Chęciny valley Zelejowa, Czerwona Mt.)
Southern part of the Chęciny anticline and the Permian-Mesozoic margin (Wrzosy, Zaklikowa Mt., Czubata Mt., Leśna Mt., Tokarnia)
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 (Miedzianka, Besówka, Gałęzice, Kopanina Mt.)
Paleozoic in the Kielce unit (Kowala, Mójcza)
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 (Św. Krzyż - Słupia Nowa - Św. Katarzyna (entrance to Łysica)
Mesozoic sedimentation and fauna (Gromadzice - Kunów -Doły Biskupie - Krzemionki opatowskie - Bałtów)
Kielce geological reserve (Śluchowice - Kadzielnia - Muzeum Geologiczne PGi Geological Museum)
Miocene sedimentation of the "Southern Sea" (Zajęcza Mt. -Leszcze - Busko Zdrój - Lipna Góra)

development of karst processes in the Holy Cros Mts area (a.o. Raj Cave)

mineral resources of the region and their use (ore mineralization, Kielce marbles)</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>field notebook</td><td>51.0%</td><td>30.0%</td></tr>
<tr><td>final test</td><td>51.0%</td><td>40.0%</td></tr>
<tr><td>practical exercises</td><td>51.0%</td><td>30.0%</td></tr>
</table>
</td></tr>
<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>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</td></tr>
<tr><td>Supplementary literature</td><td>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</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
</table>
</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>e.g.
- geological cross-section through the Chęciny Anticline
- depositional environments of sedimentary rocks
- karst processes
- boulder fieds in Lysogory area</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
</table>