University of Gdańsk

Subject card

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| Subject name and code | Field exercises - dynamic geology, PG_00091108 | | |
| Field of study | Geology | | |
| Date of commencement of studies | October 2024 | Academic year of realisation of subject | 2024/2025 |
| Education level | Bachelor's studies | Subject group | Obligatory subject group in the field of study<br>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 | |

**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

Additional information:

field courses

**Learning activity and number of study hours**

| Learning activity | Participation in didactic classes included in study plan | Participation in consultation hours | Self-study | SUM |
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| 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 |
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| [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 | is prepare to take full responsibility for the actions taken and to comply with the principles of professional ethics | [SK3] text preparation/written work<br>[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<br>[SW5] 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 | 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<br>[SK8] observation of student's independent or team work |
| [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_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<br>[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 | [SU3] text preparation/written work<br>[SU4] test/exam - oral or written<br>[SU5] implementation of a problem task<br>[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<br>[SW5] implementation of a problem task |
| [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<br>[SW1] oral statement/ conversation/discussion<br>[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<br>[SU6] demonstration of practical skills<br>[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<br>[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<br>[SU8] observation of student's independent or team work |

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| Subject contents | Course issues:<br>familiarize the student with the geological structure of selected areas.<br>making geological documentation using simple methods<br>identification of rocks, minerals and fossils<br>identification of geological structures<br>school of geological thinking based on field geological observations<br><br>1. Devon of the Chęciny anticline and the Rzepka syncline<br>Zamkowa Mountain - Rzepka Mountain<br>2. Variscan sedimentary-diastrophic cycle in the Chęciny unit<br>Chęcin Valley - Zelejowa - Czerwona Góra - Panek (I observations to the section).<br>3. Caledonian sedimentary-diastrophic cycle in the Kielce unit<br>Kierdonka Valley - Bardo Ponds<br>4. 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.<br>Ostrówka - Gałęzice - Kopanina Mountain<br>5. Sedimentology, tectonics and clastics of Devonian rocks of the Kielce unit and Jurassic of the Permian-Mesozoic margin<br>Miedzianka - Morawica<br>6. Southern part of the Chęciny anticline and the Permian-Mesozoic margin<br>Zamkowa Mtn. - Wrzosy - Zaklikowa Mtn. - Czubata Mtn.- Lesna Mtn. - Nida (II observations to the section)<br>7. Formation of Cambrian, Devonian and Permian of the Lysogory unit<br>Wisniówka - Bukowa Mtn., Kajetanów<br>8. Sedimentology and tectonics of Paleozoic rocks in the Kielce unit - Kowala quarry and to choose:<br>Variant I: Daleszyce (ems, plakoderm sandstones, imprints of armored fish shields and spines)<br>Variant II: Mójcza (Ordovician, calcareous sedimentation, stratigraphic condensation, facies variation).<br>9. Sedimentology and tectonics of the main range in the Bald Mtn. Region, to choose:<br>Variant I: Św. Krzyż - Słupia Nowa - Św. Katarzyna (entrance to Łysica).<br>Variant II: Kamecznica Podmąchocicka - Lubrzanka gorge - loess - Holy Cros<br><br>10. Northern part of the Permian-Mesozoic margin, to choose:<br>Variant I: Gromadzice, Kunów, Doły Biskupie<br>Variant II: Tumlin and Soltykow<br>11. Geology in Kielce - Kielce geological reserve, to choose:<br>Variant I: Śluchowice, Kadzielnia - PGI Geological Museum<br>Variant II: Karczowka (lead crumbling) - Wietrznia - Geopark Kielce.<br>12. Southern part of the Permian-Mesozoic margin and the Pre-Carpathian collapse<br>Zajęcza G. - Skorocice - Gacki - Busko Zdrój |
| Prerequisites and co-requisites | |

**Assessment methods and criteria**

| Subject passing criteria | Passing threshold | Percentage of the final grade |
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| colloquium | 51.0% | 40.0% |
| practical exercises | 51.0% | 30.0% |
| field notebook | 51.0% | 30.0% |

**Recommended reading**

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| Basic literature | Jaroszewski W. / Roniewicz P. (red.) 1986 - 1999: Przewodnik do ćwiczeń z geologii dynamicznej. Warszawa<br><br>Kotański Z., 1959. Przewodnik geologiczny po Górach Świętokrzyskich, Wyd. Geologiczne, Warszawa<br>Stupnicka E., Stempień-Sałek M., 2001. Poznajemy Góry Świętokrzyskie wycieczki geologiczne, Wyd. Naukowe PWN, Warszawa<br>Filonowicz P., 1973. Szczegółowa mapa geologiczna Polski, ark. KIELCE (815), Wyd. PIG, Warszawa |
| Supplementary literature | Mizerski W., 2020: Geologia dynamiczna. Wydawnictwa Naukowe PWN, Warszawa<br><br>Skompski S., Żylińska A., 2006. Materiały konferencyjne 77 Zjazdu Naukowego PTG, Ameliówka; Barski i in., 2012. Góry Świętokrzyskie, 25 najważniejszych odsłonięć geologicznych. |
| eResources addresses | |

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| Example issues/ example questions/ tasks being completed | For example, making a geological cross-section |
| Work placement | Not applicable |

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