University of Gdańsk

Subject card

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| Subject name and code | Research and documentation of mineral resources - laboratory classes, PG_00193048 | | |
| Field of study | Geology | | |
| Date of commencement of studies | October 2026 | Academic year of realisation of subject | 2028/2029 |
| 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 | 3 | Language of instruction | Polish |
| Semester of study | 6 | ECTS credits | 2.0 |
| Learning profile | academic | Assessment form | credit |
| Conducting unit | Department of Geophysics -> Faculty of Oceanography and Geography -> Rector | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr Robert Sokołowski | |
| | Teachers | | |

**Lesson types**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 0.0 | 0.0 | 15.0 | 0.0 | 0.0 | 15 |

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 | 15 | 2.0 | 33.0 | 50 |

**Subject objectives**

The aim of the course is to learn about methods of prospecting and identifying mineral deposits, acquiring skills in mapping and calculating deposit resources, defining deposit boundaries, designing geological works, and learning about the practical application of geological and mining law.

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [GEOLL3_U04] is able to use specialized computer software and mathematical and statistical methods in the analysis of geological data | Be able to use specialised computer software and mathematical and statistical methods in the analysis of reservoir data | [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 | Is able to plan the successive stages of exploration and documentation of mineral deposits individually or in teams, to work effectively in research teams in various functions and to take responsibility for the completion of assigned tasks. | [SK5] implementation of a problem task<br>[SK8] observation of student's independent or team work |
| [GEOLL3_W06] knows statistical and IT tools as well as the principles of preparing engineering and geological documentation and cartographic materials | Is familiar with statistical and IT tools and the principles of deposit documentation | [SW5] implementation of a problem task |
| [GEOLL3_W07] knows the anthropogenic transformation of the natural environment, including the effects of the exploitation of mineral resources | Knows the anthropogenic transformation of the natural environment as an effect of mineral exploitation | [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 mineral deposits and link them to geological processes and anthropogenic environmental transformations | [SU5] implementation of a problem task |

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| Subject contents | Basic terms used in mining and deposit geology<br>Legal basis for deposit exploration and documentation<br>Methods of acquiring geological information (drilling, geophysics)<br>Drilling equipment<br>Reconnaissance drilling grid design<br>Reconnaissance and description of aggregate samples<br>Introduction to specialised software<br>Identification of deposit boundaries<br>Methods for calculating the reserves of rock deposits<br>Deposit development project | |
| Prerequisites and co-requisites | | |
| Assessment methods and criteria | Subject passing criteria: Course work for assessment | Passing threshold: 66.0% / Percentage of the final grade: 100.0% |
| Recommended reading | Basic literature | Nieć M., 2012. Metodyka dokumentowania złóż kopalin stałych; Część I Poszukiwanie i rozpoznawanie złóż, planowanie i organizacja prac geologicznych, Ministerstwo Środowiska, Kraków<br>Nieć M., 2012. Metodyka dokumentowania złóż kopalin stałych; Część II Kartowanie geologiczne złóż, Ministerstwo Środowiska, Kraków<br>Nieć M., 2012. Metodyka dokumentowania złóż kopalin stałych; Część III Opróbowanie złóż kopalin, Ministerstwo Środowiska, Kraków<br>Nieć M., 2012. Metodyka dokumentowania złóż kopalin stałych; Część IV Szacowanie zasobów, Ministerstwo Środowiska, Kraków |
| | Supplementary literature | Gałkiewicz T., 1976 Poszukiwanie i rozpoznawanie złóż kopalin stałych. Wyd. Geol., Warszawa<br>Nieć M., 1990 Geologia kopalniana. Wyd. Geol., Warszawa<br>Nieć M., 2011 Problemy geologicznego dokumentowania złóż kopalin stałych. Wyd. IGSMiE PAN, Kraków<br>Prawo Geologiczno-Górnicze tekst jednolity z dnia 30 stycznia 2015 r..<br>Rozporządzenie Ministra Środowiska z dnia 20 grudnia 2011 r. w sprawie szczegółowych wymagań dotyczących projektów robót geologicznych, w<br>tym robót, których wykonywanie wymaga uzyskania koncesji.<br>Zasady dokumentowania złóż kopalin stałych., 2002.Ministerstwo Środowiska, Departament Geologii i Koncesji Geologicznych, Warszawa.<br>Rozporządzenie Ministra Środowiska z dnia 1 lipca 2015 r. w sprawie dokumentacji geologicznej złoża kopaliny, z wyłączeniem złoża węglowodorów<br>Rozporządzenie Ministra Środowiska z dnia 20 grudnia 2011 r., z późniejszymi zmianami, w sprawie szczegółowych wymgań dotyczących<br>projektów robót geologicznych, w tym robót, których wykonywanie wymaga uzyskania koncesji |
| | eResources addresses | |
| Example issues/ example questions/ tasks being completed | Natural aggregates deposit exploration project<br>Resulting documentation of a natural aggregates deposit | |
| Work placement | Not applicable | |

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