Annex No. 5

to Ordinance No. 21/2019

**COURSE/MODULE SYLLABUS FOR UNIVERSITY COURSES/PhD STUDIES**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Course/module name in Polish and English  Mineralogia stosowana (ćwiczenia terenowe)/Applications of mineral sciences (field course) | | |
|  | Discipline  Earth and Environmental Science | | |
|  | Language of instruction  English | | |
|  | Teaching unit  Faculty of Earth Science and Environmental Management, Institute of Geological Sciences, Department of Mineralogy and Petrology, Department of Experimental Petrology | | |
|  | Course/module code  USOS | | |
|  | Type of course/module *(mandatory or optional)*  optional | | |
|  | Field of studies (major, if applicable)  Geology (spec. Applied Geoscience) | | |
|  | Level of higher education *(undergraduate (I cycle), Master’s (II cycle), 5 year uniform Master’s studies)*  Master’s (II cycle) | | |
|  | Year of studies *(if applicable*)  I | | |
|  | Semester *(winter or summe*Applications of mineral sciences (field course)/ Mineralogia stosowana (ćwiczenia terenowe)*r)*  summer | | |
|  | Form of classes and number of hours  Field course: 36  Teaching methods  field trips, practical exercises, preparation of reports | | |
|  | Name, title/degree of the teacher/instructor  Coordinator: Dr hab. Marek Awdankiewicz, Prof. UWr  Field course instructor: Dr Adam Szuszkiewicz, Dr Krzysztof Turniak, Dr hab. Marek Awdankiewicz, Prof. UWr., Dr hab. Piotr Gunia, Prof. UWr., Dr hab. Jakub Kierczak, Prof. UWr, Dr Wojciech Bartz, Dr hab. Anna Pietranik, Prof. UWr, Dr Magdalena Matusiak-Małek | | |
|  | Course/module prerequisites, in terms of knowledge, skills, social competences  Knowledge and skills in Earth sciences acquired during bachelor degree studies in geology or related fields. | | |
|  | Course objectives  Presentation of applications mineralogical methods and sciences and their technological aspects in mining and processing of economically important rocks and minerals.  Gaining practical insights into the work of quarries, mines and raw-material industry from a geological, mineralogical, technical as well as social and environmental points of view. | | |
|  | Course content  The course will be based on field trips into selected quarries and mines of building and road stones, gravel and sand, ceramic clays, metal ores etc., both working and closed, in Lower Silesia. Relationships between the geology of a deposit, the mineralogical and physico-chemical characteristics of rocks and minerals and their value as raw materials for industrial applications, as well as methods of quality assessment and evaluation of industrial rocks and minerals will be presented. The field course will allow the students to gain insights into applications and practical significance of various aspects of mineralogical sciences in mining and processing of economically important rocks and minerals. | | |
|  | Intended learning outcomes  P\_W01 Practical knowledge on methods of mining and processing of natural resources (rocks and minerals) as well as on the impact that these activities have on the environment.  P\_W02 Extended knowledge on natural and mineral resources of Poland.  P\_U01 Ability to apply theoretical knowledge on applied mineralogy and petrology to preliminary evaluation of rocks and minerals as materials for industrial applications. The ability of planning field work and laboratory tests.  P\_K01 Ability to identify the areas of potential environmental impact of rock mining and processing.  P\_K02 Awareness of potential risks associated with geological field works and appropriate precautions to minimize them; ability to work in a team | Symbols of learning outcomes for particular fields of studies, *e.g. K\_W01\**, *K\_U05,K\_K03*  K2\_W08  K2\_W07  K2\_U01, K2\_U04, K2\_U06  K2\_K04  K2\_K05, K2\_K02 | |
|  | Required and recommended reading *(sources, studies, manuals, etc.)*  Required reading and recommended reading: a set of selected publications will be recommended to students before the course. | | |
|  | Assessment methods for the intended learning outcomes:  The course leaders will evaluate the work of student in the field, carrying observations, taking field notes, participation in discussions, reports prepared. K2\_K02, K2\_K04, K2\_K05, K2\_W07, K2\_W08, K2\_U01, K2\_U04, K2\_U06. | | |
|  | Credit requirements for individual components of the course/module:  Participation in the field trips is obligatory according to generals rules of studies at the University of Wroclaw. The at the end of the course student must provide their field notebooks and reports form field work for evaluation. | | |
|  | Total student effort | | |
| form of student activities | | number of hours for the implementation of activities |
| classes (according to the plan of studies) with a teacher/instructor:  - field course: 36 | | 36 |
| student's own work (including group-work) such as:  - consultation: 5  - reading the suggested literature: 9  - preparation of reports: 20  - preparation for tests: 5 | | 39 |
| Total number of hours | | 75 |
| Number of ECTS credits | | 3 |