Annex No. 5

to Ordinance No. 21/2019

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | Course/module name in Polish and English  Economic Geology /Geologia Gospodarcza | | |
|  | Discipline  Earth and Environmental Science | | |
|  | Language of instruction  English | | |
|  | Teaching unit  Faculty of Earth Science and Environmental Management, Institute of Geological Sciences, Department of Economic Geology | | |
|  | Course/module code  USOS | | |
|  | Type of course/module *(mandatory or optional)*  optional | | |
|  | Field of studies (major, if applicable)  Geology | | |
|  | Level of higher education *(undergraduate (I cycle), Master’s (II cycle), 5 year uniform Master’s studies)*  undergraduate (I cycle) | | |
|  | Year of studies *(if applicable*)  III | | |
|  | Semester *(winter or summer)*  Winter | | |
|  | Form of classes and number of hours  Lectures: 28  Lab classes: 39  Teaching methods  Multimedia lecture, preparation of reports | | |
|  | Name, title/degree of the teacher/instructor  Coordinator: prof. dr hab. Andrzej Solecki  Lecturer: prof. dr hab. Andrzej Solecki  Classes instructor: prof. dr hab. Andrzej Solecki | | |
|  | Course/module prerequisites, in terms of knowledge, skills, social competences  Basic knowledge of Physical Geology | | |
|  | Course objectives  Getting familiar with genesiss and economy of mineral deposits. | | |
|  | Course content  Lectures:  Types of mineral resources (metallic, chemical, fossil fuels, building stones etc.)  Geochemical classification of elements and principles of mineral deposits formation  Role of magmatic processes  Role of water  Mineral deposits related to diagensis and metamorphic processes  Mineral deposits connected with ocean floor magmatism (e.g. VHMS, SEDEX)  Mineral deposits of active continental margins (e.g. porphyry copper, granite related etc.)  Mineral deposits of platform areas (e.g. MVT)  Mineral deposits related to weathering  Sedimentary mineral deposits (metallic, chemical and building materials)  Fossil fuels: peat, lignite, coal, hydrocarbons  Laboratory classes:  review of minerals, ores, and deposits | | |
|  | Intended learning outcomes  W\_1 Knows the basic types of mineral deposits.  W\_2 Knows the possibilities of mineral raw material application.  U\_1 Can recognize basic ore minerals.  U\_2 Is able to evaluate the possibilities of mineral raw material application.  K\_1 Can critically analyse the information provided to him. Is aware of expanding his knowledge in the field of knowledge of mineral deposit geology. | Symbols of learning outcomes for particular fields of studies:  K1\_W05  K1\_W08  K1\_U02  K1\_U13  K1\_K05, K1\_K06 | |
|  | Required and recommended reading *(sources, studies, manuals, etc.)*  Required reading  Evans A.M. 1997: An Introduction to Economic Geology and Its Environmental Impact. pp. 396.  Gluyas J., Swarbrick R.2004: Petroleum Geoscience . Blackwell Publishing.  Recommended reading  Roberts R.G., Sheahan P.A. (1994) - Ore deposit models. Geoscience Canada.  Osika R., 1990: Geology of Poland-Mineral deposits Vol. 6. Warszawa Wydawnictwa Geologiczne pp. 314 Economics of the Mineral Industries, William A. Vogely, Editor, 4th Edition, 1985.  Hutchison C.S. 1983: Economic Deposits and their tectonic Setting. MacMillan Education. pp. 365. | | |
|  | Assessment methods for the intended learning outcomes:  - written examination: K1\_W05,  - semester paper (individual or group): K1\_W08, K1\_U02, K1\_U13, K1\_K05, K1\_K06. | | |
|  | Credit requirements for individual components of the course/module:  Lab classes: writing a class report.  Lectures: written examination (50% credits). | | |
|  | 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:  - lectures: 28  - lab classes: 39 | | 67 |
| student's own work (including group-work) such as:  - being prepared for classes: 10  - reading the suggested literature: 10  - writing a class report: 20 | | 40 |
| Total number of hours | | 107 |
| Number of ECTS credits | | 4 |