

COURSE/MODULE SYLLABUS FOR UNIVERSITY COURSES/PhD STUDIES

1.	Course/module name in Polish and English Economic Geology /Geologia Gospodarcza
2.	Discipline Earth and Environmental Science
3.	Language of instruction English
4.	Teaching unit Faculty of Earth Science and Environmental Management, Institute of Geological Sciences, Department of Economic Geology
5.	Course/module code USOS
6.	Type of course/module (<i>mandatory or optional</i>) optional
7.	Field of studies (major, if applicable) Geology
8.	Level of higher education (<i>undergraduate (I cycle), Master's (II cycle), 5 year uniform Master's studies</i>) undergraduate (I cycle)
9.	Year of studies (<i>if applicable</i>) III
10.	Semester (<i>winter or summer</i>) Winter
11.	Form of classes and number of hours Lectures: 28 Lab classes: 39 Teaching methods Multimedia lecture, preparation of reports
12.	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
13.	Course/module prerequisites, in terms of knowledge, skills, social competences Basic knowledge of Physical Geology
14.	Course objectives

	Getting familiar with genesis and economy of mineral deposits.	
15.	<p>Course content</p> <p>Lectures:</p> <p>Types of mineral resources (metallic, chemical, fossil fuels, building stones etc.)</p> <p>Geochemical classification of elements and principles of mineral deposits formation</p> <p>Role of magmatic processes</p> <p>Role of water</p> <p>Mineral deposits related to diagenesis and metamorphic processes</p> <p>Mineral deposits connected with ocean floor magmatism (e.g. VHMS, SEDEX)</p> <p>Mineral deposits of active continental margins (e.g. porphyry copper, granite related etc.)</p> <p>Mineral deposits of platform areas (e.g. MVT)</p> <p>Mineral deposits related to weathering</p> <p>Sedimentary mineral deposits (metallic, chemical and building materials)</p> <p>Fossil fuels: peat, lignite, coal, hydrocarbons</p> <p>Laboratory classes:</p> <p>review of minerals, ores, and deposits</p>	
16.	<p>Intended learning outcomes</p> <p>W_1 Knows the basic types of mineral deposits.</p> <p>W_2 Knows the possibilities of mineral raw material application.</p> <p>U_1 Can recognize basic ore minerals.</p> <p>U_2 Is able to evaluate the possibilities of mineral raw material application.</p> <p>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.</p>	<p>Symbols of learning outcomes for particular fields of studies:</p> <p>K1_W05</p> <p>K1_W08</p> <p>K1_U02</p> <p>K1_U13</p> <p>K1_K05, K1_K06</p>
17.	<p>Required and recommended reading (<i>sources, studies, manuals, etc.</i>)</p> <p>Required reading</p> <p>Evans A.M. 1997: An Introduction to Economic Geology and Its Environmental Impact. pp. 396.</p> <p>Gluyas J., Swarbrick R. 2004: Petroleum Geoscience . Blackwell Publishing.</p> <p>Recommended reading</p> <p>Roberts R.G., Sheahan P.A. (1994) - Ore deposit models. Geoscience Canada.</p> <p>Osika R., 1990: Geology of Poland-Mineral deposits Vol. 6. Warszawa Wydawnictwa Geologiczne pp. 314</p> <p>Economics of the Mineral Industries, William A. Vogely, Editor, 4th Edition, 1985.</p> <p>Hutchison C.S. 1983: Economic Deposits and their tectonic Setting. MacMillan Education. pp. 365.</p>	
18.	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.	
19.	Credit requirements for individual components of the course/module: Lab classes: writing a class report. Lectures: written examination (50% credits). Final rank weight factors: 50% Lecture, 50% Classes.	
20.	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