



## Subject card

Subject name and code	Mineral Resources, PG_00049200						
Field of study	Chemistry						
Date of commencement of studies	October 2020		Academic year of realisation of subject			2022/2023	
Education level	first-cycle studies		Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study	
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	general academic profile		Assessment form			assessment	
Conducting unit	Department of Chemistry and Technology of Functional Materials -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. Anna Lisowska-Oleksiak				
	Teachers		prof. dr hab. Anna Lisowska-Oleksiak prof. dr hab. inż. Jarosław Chojnacki				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	15.0	30
	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	30		5.0		15.0	50
Subject objectives	The aim of the Subject " Mineral Resources" is to give basic information about mineralogy, petrography and mineral processing.						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	K6_W02		knows the basics and has structured knowledge in the field of chemistry and mineral resources, knows their economic importance and understands the environmental importance of the processing of mineral resources			[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation	
	[K6_U05] can, on the basis of the collected experimental or source material, prepare an oral communication with a multimedia presentation		is able, on the basis of critically selected source material, to prepare and present a speech with a multimedia presentation on the subject of mineral resources, their processing, economic and geopolitical importance			[SU5] Assessment of ability to present the results of task [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment	
Subject contents	Not specified						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold			Percentage of the final grade	
	Presentation on seminar		51.0%			50.0%	
	test (written) on lecture course		51.0%			50.0%	

Recommended reading	Basic literature	<p>Bolewski A., Manecki A., Mineralogia szczegółowa, Wyd. Polskiej Agencji Ekologicznej, Warszawa, 1993, Manecki, Andrzej Encyklopedia minerałów, 2004; Bolewski, Andrzej, Kubisz, Jan, Żabiński - Mineralogia ogólna; 1975; E. Liber-Madzisz, B. Teisseyre, Mineralogia i petrografia, Oficyna Wydawnicza Wrocław 2000; .Willer Joanna, Pacholewska Małgorzata, Agnieszka Fornalczyk, Mariola Saturnus Wprowadzenie do hydrometalurgii i biometalurgii metali nieżelaznych Wydawnictwo Politechniki Śląskiej, Gliwice 2015.</p> <p>Internet: <a href="http://webmineral.com">http://webmineral.com</a> <a href="http://http://surowce-mineralne.pgi.gov.pl/index.htm">http://http://surowce-mineralne.pgi.gov.pl/index.htm</a></p>
	Supplementary literature	Jan Drzymała, Podstawy mineralurgii, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław 2009
	eResources addresses	<p>Adresy na platformie eNauczanie:</p> <p>Surowce mineralne 2023 - Moodle ID: 29058  <a href="https://enauzanie.pg.edu.pl/moodle/course/view.php?id=29058">https://enauzanie.pg.edu.pl/moodle/course/view.php?id=29058</a></p>
Example issues/ example questions/ tasks being completed	<ol style="list-style-type: none"> <li>1. Main and characterised geological processes responsible for rocks formation.</li> <li>2. Describe Bowen's reaction series</li> <li>3. Describe economic importance of sulfide minerals on choices example.</li> <li>4. Give examples of diadochy.</li> <li>5. What are the limitations in raw materials for the development of electric mobility (EV).</li> </ol>	
Work placement	Not applicable	