



Module name: Ore petrology

Academic year: 2013/2014 Code: BGG-2-102-EG-s ECTS credits: 4

Faculty of: Geology, Geophysics and Environmental Protection

Field of study: Mining and Geology Specialty: Economic geology

Study level: Second-cycle studies Form and type of study: Full-time studies

Lecture language: English Profile of education: Academic (A) Semester: 1

Course homepage: —

Responsible teacher: mgr inż. Zygo Władysław (wzygo@geol.agh.edu.pl)

Academic teachers: prof. dr hab. inż. Piestrzyński Adam (piestrz@geol.agh.edu.pl)  
dr hab. Prsek Jaroslav (prsek@yahoo.com)

## Description of learning outcomes for module

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Connections with FLO	Method of learning outcomes verification (form of completion)
Skills			
M_U001	Student is able identify selected ore minerals using reflected light microscope.	GG2A_U09	Examination, Test
M_U002	Student is able to describe structures and textures of ore minerals using reflected light microscopy	GG2A_U09	Examination, Test
Knowledge			
M_W001	Student have knowledge on ore petrography necessary for description of processes connected with ore deposits.	GG2A_W01	Examination, Test
M_W002	Student have knowledge necessary for ore mineral identification in reflected light microscopy	GG2A_W01	Examination, Test

## FLO matrix in relation to forms of classes

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Form of classes
----------	--	-----------------

		Lectures	Auditorium classes	Laboratory classes	Project classes	Conversation seminar	Seminar classes	Practical classes	Others	Fieldwork classes	Workshops	E-learning
Skills												
M_U001	Student is able identify selected ore minerals using reflected light microscope.	-	-	+	-	-	-	-	-	-	-	-
M_U002	Student is able to describe structures and textures of ore minerals using reflected light microscopy	-	-	+	-	-	-	-	-	-	-	-
Knowledge												
M_W001	Student have knowledge on ore petrography necessary for description of processes connected with ore deposits.	+	-	-	-	-	-	-	-	-	-	-
M_W002	Student have knowledge necessary for ore mineral identification in reflected light microscopy	+	-	-	-	-	-	-	-	-	-	-

## Module content

### Lectures

What is ore petrology? Petrology and genesis of mineral deposits relationship. Theory of reflected light. Ore microscope building, types of microscopes. How to use ore microscope in practice. Characteristics of ore minerals, identification of ore minerals, optical and physical features of ore minerals, qualitative and quantitative analyses, micro photography, industrial importance of this analysis for metallurgical tests.

### Laboratory classes

Round 60 different ore minerals should be determine by the individual students. Practical knowledge – how to identified ore minerals, individual work with ore microscope, description of structures and textures and their importance in petrology. Individual project related to the genesis of a selected mineral deposit.

### Method of calculating the final grade

The final grade: = 0,6 • exam + 0,4 • test

### Prerequisites and additional requirements

Prerequisites and additional requirements not specified

### Recommended literature and teaching resources

1. Pracejus B. (2008) – Ore Minerals Under the Microscope An Optical Guide
2. Ramdohr, P. (1969). The ore minerals and their intergrowths
3. Uytendogaardt W., Burke E.A.J. (1971) – Tables for microscopic identification of ore minerals

### **Scientific publications of module course instructors related to the topic of the module**

Additional scientific publications not specified

### **Additional information**

None

### **Student workload (ECTS credits balance)**

Student activity form	Student workload
Participation in lectures	15 h
Participation in laboratory classes	45 h
Preparation for classes	20 h
Realization of independently performed tasks	20 h
Summary student workload	100 h
Module ECTS credits	4 ECTS