

Informačný list predmetu (Course description)

Vysoká škola (University): Comenius University in Bratislava	
Fakulta (Faculty): Faculty of Natural Sciences	
Kód predmetu (Code): PriF.KMPLG/N-mMPL-015/22	Názov predmetu (Course): Accessory minerals
Druh, rozsah a metóda vzdelávacích činností (Study design): Seminar, weekly, 2 hours, 26 hours per semester. Method of study: full-time, combined	
Počet kreditov (Number of credits earned): 3	
Odporúčaný semester/trimester štúdia (Recommended semester): 1. Winter semester	
Stupeň štúdia (Degree): 2. Degree	
Podmieňujúce predmety (Prerequisite courses): none	
Podmienky na absolvovanie predmetu (Grading policy): Oral exam. It is necessary to obtain following percentage of required knowledge: 92–100% for A rating, 84–91% for B rating, 76–83% for C rating, 68–75% for D rating, and 61–67% for E rating.	
Výsledky vzdelávania (Course objectives): The aim of the subject is the basic characteristics of accessory minerals of igneous and metamorphic rocks or as heavy minerals in clastic sedimentary rocks. The graduate will become familiar with the methodology of obtaining accessory and heavy minerals from solid and loose rocks. The course is oriented on the basic characteristics of the most important accessory or heavy minerals with a focus on variations in their chemical composition, conditions of formation and alteration in the context of their genetic link to specific igneous and metamorphic rocks. Emphasis is placed on understanding the role of accessory minerals as indicators of petrogenesis and evolution of source rocks, as well as their use for dating rocks and geological processes. The importance of heavy minerals as indicators of primary source rocks and lithotectonic units is also documented. Attention is also paid to the practical issues of prospecting for deposits of mineral raw materials. The graduate thus acquires comprehensive knowledge about the issue of accessory and heavy minerals, with a connection to the genesis of minerals and rocks, as well as geological prospecting.	
Stručná osnova predmetu (Syllabus): Characteristics of accessory and heavy minerals, their properties and distribution in different types of rocks. Methodology for obtaining accessory and heavy minerals (separation methods). Modern laboratory methods for the determination and study of accessory and heavy minerals. Systematic characterization of the most important accessory minerals, variations in their chemical composition, their genesis and relation to specific rocks, stability, and transformations. The use of accessory minerals as indicators of the genesis of source rocks and geological processes. Possibilities and results of dating of accessory minerals. Heavy minerals as indicators of provenance of source rocks and geological units, their significance for paleogeographical and paleotectonic interpretation. Prospecting of heavy minerals, its methodology and significance for the identification of mineral deposits. Accessory minerals: sources of strategic lithophile elements (Ti, Nb, Ta, Zr, Hf, REE, Sn, W, Au, Pt), precious stones (diamond, ruby, topaz, etc.) and abrasives (diamond, corundum, garnets).	
Odporúčaná literatúra (Recommended literature): Broska I., Petřík I., Uher P. (2012): Accessory minerals of West-Carpathian granitic rocks. Veda Publisher, Bratislava, 235 pages. Bowles J.F.W., Howie R.A., Vaughan D.J., Zussman J. (2011): Rock-forming minerals. Vol 5A. Non-Silicates. Geological Society, London, 920 pages.	

Selected papers from international mineralogical journals (e.g., American Mineralogist, Canadian Mineralogist, Mineralogical Magazine, European Journal of Mineralogy).

Jazyk, ktorého znalosť je potrebná na absolvovanie predmetu (The course is held in):
English language.

Poznámky (Other course information):

Hodnotenie predmetov (Grading history)

A	B	C	D	E	FX
a	b	c	d	e	f

The percentage of students evaluated who received an A, B, ... Fx. The total sum of a, b, c, d, e, f is 100. If a student has obtained FX in one year and after the next entry of the course, the D rating shall be taken into account.

Vyučujúci (Professor): prof. RNDr. Pavel Uher, PhD., RNDr. Ondrej Nemeč, PhD.

Dátum poslednej zmeny (Last update):

Schválil (Approved by): prof. RNDr. Monika Huraiová, PhD.