

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-003/22	Názov predmetu (Course): Petrology 1
Druh, rozsah a metóda vzdelávacích činností (Study design): Lectures and Exercises, weekly, 2 hours lecture / 1 hour exercise, 39 hours per semester. Method of study: full-time, combined.	
Počet kreditov (Number of credits earned): 4	
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): Active attendance on Lectures and Exercises. To obtain an A, it is necessary to demonstrate 92-100% of the required knowledge, to get a B: 84-91%, C: 76-83%, for a D: 68-75% and for an E: 61-67% of the required knowledge.	
Výsledky vzdelávania (Course objectives): After completing the course, the students will master the detailed classification of magmatic rocks and will be able to characterize the magmatic melt and its properties. They will get acquainted with the processes of formation of magma and magmatic rocks and with the ways of magma differentiation. They will be able to distinguish individual petroctectonic associations of magmatic rocks, characterize their formation, describe their occurrence and significance. In the second part of the course, they will learn the basic methods of analysis provided on clastic sedimentary rocks (volcanoclastic, siliciclastic) and their use for the purposes of identifying the source area / geotectonic environment of formation, the mechanism of deposition and diagenesis. Evaporites - general conditions of their formations and major control factors.	
Stručná osnova predmetu (Syllabus): Classifications of magmatic rocks. Magma, its properties and ways of differentiation. Basaltic magma, mantle melting and the formation of basaltic magma. Granitic magma and the crucial mechanisms of its formation. Xenoliths and their interpretations. Petroctectonic associations of basaltic rocks. Mid ocean ridges. Ophiolites. Oceanic intraplate volcanism. Large igneous provinces. Magmatic activity on subduction zones – island and continental arc. Granitoids. Mineralogical, chemical and modal composition of granitoids. Principal classifications of granitoids, petrogenesis of granitoids. Continental alkaline magmatism. Kimberlites. Carbonatites. Anorthosites. Genesis, diagenesis, investigation methods of volcanoclastic and epiclastic sediments. Control factors, usage of the data obtained and interpretation of the deposition environment, source area and diagenesis. The main controlling factors for the formation of evaporites, and differences in mineral composition as a reflection of the depositional environment.	
Odporúčaná literatúra (Recommended literature): Winter J. D., 2010: Principles of igneous and metamorphic petrology. Prentice Hall. Le Maitre R. W., Ed., 2004: Igneous rocks: A classification and glossary of terms. Cambridge University Press. Best M.G. a Christiansen E.H., 2001: Igneous Petrology. Blackwell Science. Gill, R., 2010: Igneous Rocks and Processes: a practical guide, Wiley-Blackwell. Blatt E., 1992: Sedimentary petrology. 2. ed., Freeman Comp. Boggs S., Jr., 2009: Petrology of sedimentary rocks, 2nd. Edition, Cambridge Univ. Press. Tucker M.E., 2001: Sedimentary petrology, 3rd. Ed., Blackwell Publ.	

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

Poznámky (Other course information): The subject is taught only in the winter semester.

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. Monika Huraiová, PhD., doc. Mgr. Katarína Šarinová, PhD., doc. Mgr. Martin Ondrejka, PhD.

Dátum poslednej zmeny (Last update):

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