

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-004/22	Názov predmetu (Course): Petrology 2
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): 2. Summer 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): The understanding of geochemical cycles and general condition and major control factors which are important for formations of biochemical sedimentary rocks (carbonates, silicites, Fe, Mn, and P-rich sediments. Students will be able to interpret depositional environment/conditions, processes of precipitation and diagenesis. Principles of metamorphism and metasomatism, mineral assemblages, metamorphic facies, phase equilibria and P-T conditions of metamorphism. Geotectonic environment of protoliths and their metamorphism. Principles of computational thermodynamic modelling in metamorphic petrology. Student will acquire basic knowledge about petrologic research of metamorphic rocks and their sedimentary protoliths.	
Stručná osnova predmetu (Syllabus): General information's about origin of various type carbonatic rocks, geochemistry and diagenetic processes and principles of analytical methods. Geochemical cycles of Si, Fe, Mn, P and conditions leading to diagenetic enrichment of the sediments with these elements - genesis and diagenesis. Introduction to metamorphic petrology. Physical and chemical principles of metamorphism. Metamorphic reactions, the chemistry of mineral phases and their changes. Phase Equilibria. Interpretation of zonality in metamorphic minerals. P-T-t trajectories. UHT and UHP metamorphism. UHT metamorphism and partial melting. Tectono-metamorphic evolution of Orogens. Basic principles of computational thermodynamic modelling in metamorphic petrology. Software used for geo-thermo-barometry and thermodynamic modelling.	
Odporúčaná literatúra (Recommended literature): (1) Kurt Bucher, Rodney Grapes 2011: Petrogenesis of Metamorphic Rocks. Springer, 8 th edition (2) Krist E., Korikovskiy S.P., Putiš M., Janák M., Faryad S.W., 1992: Geology and Petrology of Metamorphic Rocks of the Western Carpathian Crystalline Complexes. Comenius University Press, Bratislava;	
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. Marián Putiš, DrSc., doc. Mgr. Katarína Šarinová, PhD., RNDr. Ondrej Nemeč, PhD.					
Dátum poslednej zmeny (Last update):					
Schválil (Approved by): Prof. Monika Huraiová, PhD.					