

Information sheet for the course Technical Mineralogy and Crystallography

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of Industrial Technologies in Púchov</i>					
Course unit code: <i>MI-I-PV-4B</i>			Course unit title: <i>Technical Mineralogy and Crystallography</i>		
Type of course unit: <i>optional</i>					
Planned types, learning activities and teaching methods: <i>Lecture: 2 hours weekly/26 hours per semester of study; face to face</i> <i>Seminar: 1 hours weekly/13 hours per semester of study; face to face</i> <i>Laboratory tutorial: 0</i>					
Number of credits: <i>5</i>					
Recommended semester: <i>2nd semester in the 1st year full-time</i> <i>2nd semester in the 1st year part-time</i>					
Degree of study: <i>the 2nd degree of study (Engineer's degree)</i>					
Course prerequisites: <i>none</i>					
Assessment methods: <i>Student must elaborate semestral work and present it during semester. There will be one test on the end semester. Active presence on the seminars.</i>					
Learning outcomes of the course unit: <i>Student control basic principle outside shape crystals, clasification of crystals shapes, determination of physical properties, which allow identification of crystals and obtain information about microstructure and texture of materials.</i>					
Course contents: <i>Basic terms in technical mineralogy and crystallography, birth of crystals and their properties, elements of morphological boundary crystals, simply shapes and clutches. Basic crystallographical principles, crystallographical systems, classification of crystals shapes, Classification of crystals substances, types of bonds, diffraction methods, physical properties minerals, density, magnetic and electrical properties. Optical properties- refractive index, birefringence, color and coloration, quarry, Application methods and knowledge on utility natural and synthetics materials.</i>					
Recommended of required reading: <i>F.SLAVÍK, J.NOVÁK, J.KOKTA: MINERALOGIE. ACADEMIA, Praha 1974.</i> <i>R.LUKÁČ: VŠEOBECNÁ MINERALÓGIA. I.KRYŠTALOGRAFIA., SPN, Bratislava 1968. V.VALVODA, M.POLCAROVÁ, P.LUKÁČ: ZÁKLADY STRUKTURNÍ ANALÝZY. UNIVERZITA KARLOV, Praha 1992.</i> <i>J.CHOJNACKI: ZÁKLADY CHEMICKÉ A FYZIKÁLNÍ KRYŠTALOGRAFIE. ACADEMIA, Praha 1979.</i> <i>V.BOUŠKA, P.JAŠEK, T.PAČES, J.POKORNÝ (RED.): GEOCHEMIE. ACADEMIA, Praha 1980.</i> <i>B.ČÍČEL, I.NOVÁK, I.HORVÁTH: MINERALÓGIA A KRYŠTALOCHEMIA ÍLOV. VEDA, Bratislava 1981.</i>					
Language: <i>Slovak</i>					
Remarks:					
Evaluation history:					
A	B	C	D	E	FX
Lecturers: <i>prof. RNDr. Mariana Pajtášová, PhD.</i>					
Last modification: <i>31.3.2014</i>					
Supervisor: <i>prof. Ing. Darina Ondrušová, PhD.</i>					

