

**Information sheet for the course**  
**Selected Chapters from Technical mineralogy and Crystallography**

<b>University:</b> <i>Alexander Dubček University of Trenčín</i>	
<b>Faculty:</b> <i>Faculty of Industrial Technologies in Púchov</i>	
<b>Course unit code:</b> <i>MI-I-PV-41</i>	<b>Course unit title:</b> <i>Selected Chapters from Technical mineralogy and Crystallography</i>
<b>Type of course unit:</b> <i>optional</i>	
<b>Planned types, learning activities and teaching methods:</b> <i>Subject included into final state exam</i>	
<b>Number of credits:</b> <i>2</i>	
<b>Recommended semester:</b> <i>4<sup>th</sup> semester in the 2<sup>nd</sup> year full-time</i> <i>6<sup>th</sup> semester in the 3<sup>rd</sup> year part-time</i>	
<b>Degree of study:</b> <i>the 2<sup>nd</sup> degree of study (Engineer's degree)</i>	
<b>Course prerequisites:</b> <i>Graduation all compulsory and optional subjects from study plan, including subject Technical mineralogy and Crystallography.</i>	
<b>Assessment methods:</b> <i>Successfully graduation subject included into final state exam.</i>	
<b>Learning outcomes of the course unit:</b> <i>Student control within final state exam chapter problematic from Technical mineralogy</i>	
<b>Course contents:</b> <ol style="list-style-type: none"> <li><i>1. Basic terms in technical mineralogy and crystallography</i></li> <li><i>2. Basic crystallography principles</i></li> <li><i>3. Crystal lattice, lattices points, period identity</i></li> <li><i>4. Bravais translational lattices, Bravais conditions</i></li> <li><i>5. Classification of crystals substances</i></li> <li><i>6. Birth of crystals</i></li> <li><i>7. Industrial use of minerals</i></li> <li><i>8. Procedure elimination of minerals from magma</i></li> <li><i>9. Physical properties of minerals</i></li> <li><i>10. Density, Splitting, Hardness</i></li> <li><i>11. Magnetic and Electrical properties</i></li> <li><i>12. Optical Properties</i></li> <li><i>13. Mohs scale of hardness</i></li> <li><i>14. Separation of minerals by chemical composition</i></li> <li><i>15. Classification of silicates</i></li> <li><i>16. Technical use: Chapters of minerals</i></li> <li><i>17. Practical meaning of silicates</i></li> </ol>	
<b>Recommended of required reading:</b> <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>	
<b>Language:</b> <i>Slovak</i>	
<b>Remarks:</b>	

<b>Evaluation history:</b>					
A	B	C	D	E	FX
<b>Lecturers:</b> <i>prof. RNDr. Mariana Pajtášová, PhD.</i>					
<b>Last modification:</b> <i>31.03.2014</i>					
<b>Supervisor:</b> <i>prof. Ing. Darina Ondrušová, PhD.</i>					