

## Information sheet for the course Selected Chapters from Chemistry of Materials

<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>M-PV-8</i>			<b>Course unit title:</b> <i>Selected Chapters from Chemistry of Materials</i>		
<b>Type of course unit:</b> <i>optional</i>					
<b>Planned types, learning activities and teaching methods:</b>					
<b>Number of credits:</b> <i>4</i>					
<b>Recommended semester:</b> <i>Obligation to complete not later than mid-standard length of study</i>					
<b>Degree of study:</b> <i>the 3<sup>rd</sup> degree of study (PhD. degree)</i>					
<b>Course prerequisites:</b> <i>Completion of all compulsory and optional courses of the study plan prescribed under the study part of doctoral studies, including M-PV-2 Chemistry of Materials.</i>					
<b>Assessment methods:</b> <i>Successful completion of the dissertation examination subject.</i>					
<b>Learning outcomes of the course unit:</b> <i>Student will successfully complete the dissertation examination subject.</i>					
<b>Course contents:</b> <i>The characteristics of chemical composition of the material examined in the dissertation - characteristic chemical elements - electron configuration, occurrence, binding properties, basic compounds, important chemical reactions, preparation. Characteristics of examined material (composite) - preparation (production), structure, relevant properties, relations between the chemical composition and properties of a particular material, possibility of affecting the important material characteristics of the final product by changing its chemical composition. The basic principles of the methods used to study the characteristics of the investigated material (methods of chemical analysis, structural analysis, spectral analysis, thermal analysis, dynamic mechanical analysis, the method of determining the physical and mechanical properties, etc ...)</i>					
<b>Recommended of required reading:</b>					
1. E. Jóna, D. Ondrušová, M. Pajtášová: <i>Priemyselna anorganická chémia I. FPT Púchov TnU AD, 2007, ISBN 978-80-8075-237-8.</i>					
2. <i>Rubber Components and their Influence on Rubber Properties and Environmental Aspects of Production / Darina Ondrušová &amp; Mariana Pajtášová. – First Edition - Towarzystwo Słowaków w Polsce, Poland (2011), 166s. ISBN 978-83-7490-385-1.</i>					
3. M. Koman, M. Jamnický: <i>Anorganické materiály. STU Bratislava 2007.</i>					
4. W. L. Jolly: <i>Modern Inorganic Chemistry - Second Edition –McGraw-Hill, Inc., USA (1991), 655s. ISBN 0-07-032768-8.</i>					
5. J. B. Russell: <i>General Chemistry - Second Edition –McGraw-Hill, Inc., USA (1992), 1027s. ISBN 0-07-054445-X.</i>					
6. K. Weissermel, H.-J. Arpe: <i>Industrial Organic Chemistry ,VCH, Weinheim,2003, ISBN 3-527-26995-9.</i>					
7. <i>The scientific literature and foreign scientific publications to the topic of dissertation</i>					
<b>Language:</b> <i>Slovak, English</i>					
<b>Remarks:</b>					
<b>Evaluation history:</b>					
Number of evaluated students: <i>0</i>					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

<b>Lecturers:</b> <i>prof. Ing. Darina Ondrušová, PhD.</i>
<b>Last modification:</b> <i>30.04.2014</i>
<b>Supervisor:</b> <i>prof. Ing. Darina Ondrušová, PhD.</i>