

## Information sheet for the course Experimental Methods in Materials Engineering

<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>TTN-P-16</i>			<b>Course unit title:</b> <i>Experimental Methods in Materials Engineering</i>		
<b>Type of course unit:</b> <i>compulsory</i>					
<b>Planned types, learning activities and teaching methods:</b> <i>Lecture: 2 hours weekly/26 hours per semester of study; face to face</i> <i>Seminar: 0</i> <i>Laboratory tutorial: 2 hours weekly/26 hours per semester of study; face to face</i>					
<b>Number of credits:</b> <i>4</i>					
<b>Recommended semester:</b> <i>the 3<sup>rd</sup> semester in the 2<sup>nd</sup> year full-time form of study</i> <i>the 5<sup>th</sup> semester in the 3<sup>rd</sup> year part-time form of study</i>					
<b>Degree of study:</b> <i>the 1<sup>st</sup> degree of study (Bachelor's degree)</i>					
<b>Course prerequisites:</b> <i>none</i>					
<b>Assessment methods:</b> <i>Project work, test</i>					
<b>Learning outcomes of the course unit:</b> <i>The student knows the basic principles of selected experimental methods used to evaluate the properties of materials and the detection of defects in materials and products.</i>					
<b>Course contents:</b> <i>Static testing of materials, periodic and aperiodic testing, dynamic testing of materials, textile materials diagnostics using image analysis, fatigue, wear test. Evaluation of material properties using microscopic methods. Fault diagnosis of materials using microscopic methods. Interference and diffraction of light. Applications interference and diffraction of light in the diagnosis of materials. Statistical evaluation experiments.</i>					
<b>Recommended of required reading:</b> <i>LIZÁK, P. – LEGERSKÁ, J.: Náuka o materiáli. 1. vyd. Ružomberok: TnUAD - KPD, 2009. – 63 s. – ISBN 978-80-969610-2-3.</i> <i>LIZÁK, P. – LEGERSKÁ, J.: Textilné materiály: Laboratórne cvičenia. 1.vyd. Trenčín: TnUAD, 2004. – 52 s. – ISBN 80-8075-036-X.</i>					
<b>Language:</b> <i>Slovak</i>					
<b>Remarks:</b>					
<b>Evaluation history:</b>					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Lecturers:</b> <i>doc. Ing. Pavol Lizák, PhD.</i>					
<b>Last modification:</b> <i>16.03.2015</i>					
<b>Supervisor:</b> <i>doc. Ing. Pavol Lizák, PhD.</i>					