

## Information sheet for the course Materials Processing Technology I

<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>PP-P-19</i>			<b>Course unit title:</b> <i>Materials Processing Technology I</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>Laboratory tutorial: 1 hour weekly/13hours per semester of study; face to face</i>					
<b>Number of credits:</b> <i>4</i>					
<b>Recommended semester:</b> <i>3<sup>rd</sup> semester in the 2<sup>nd</sup> year full-time</i> <i>5<sup>th</sup> semester in the 3<sup>rd</sup> year part-time</i>					
<b>Degree of study:</b> <i>the 1<sup>st</sup> degree of study (Bachelor's degree)</i>					
<b>Course prerequisites:</b> <i>PP-P-4 Material science I</i>					
<b>Assessment methods:</b> <i>1 project of materials processing technology will be evaluated during the course.</i>					
<b>Learning outcomes of the course unit:</b> <i>Student has a set of theoretical and practical knowledges on processing technology in industry.</i> <i>Student can determine and solve problems of casting and welding.</i>					
<b>Course contents:</b> <ol style="list-style-type: none"> <li>1. <i>Casting advantages and application</i></li> <li>2. <i>Principle of solidification</i></li> <li>3. <i>Molding and casting processes</i></li> <li>4. <i>Sand and centrifugal casting</i></li> <li>5. <i>Precise casting</i></li> <li>6. <i>Failure of casting.</i></li> <li>7. <i>Fundamentals of welding</i></li> <li>8. <i>Fusion welding processes</i></li> <li>9. <i>Weldability testing</i></li> <li>10. <i>Soldering of metals</i></li> </ol>					
<b>Recommended of required reading:</b> <ol style="list-style-type: none"> <li>1. <i><a href="http://sk.esab.net/sk/sk/education/processes-mma-smaw.cfm">http://sk.esab.net/sk/sk/education/processes-mma-smaw.cfm</a></i></li> <li>2. <i>ASM Metals Handbook: Welding, Brazing and Soldering, 1993, Vol. 6. ISBN 0-87170-377-7(V.1)</i></li> </ol>					
<b>Language:</b> <i>Slovak</i>					
<b>Remarks:</b>					
<b>Evaluation history:</b>					
A	B	C	D	E	FX
<b>Lecturers:</b> <i>doc. Ing. Marta Kianicová, PhD., doc. Ing. Ondrej Nemčok, PhD., Ing. Rudolf Valášek</i>					
<b>Last modification:</b> <i>31.03.2015</i>					
<b>Supervisor:</b> <i>doc. Ing. Ján Vavro, PhD.</i>					