

Information sheet for the course Technology of Production and Processing of Metallic Materials

University: <i>Alexander Dubček University of Trenčín</i>	
Faculty: <i>Faculty of Industrial Technologies in Púchov</i>	
Course unit code: <i>MI-P-21</i>	Course unit title: <i>Technology of Production and Processing of Metallic Materials</i>
Type of course unit: <i>compulsory</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: 0</i> <i>Laboratory tutorial: 2 hour weekly/26 hours per semester of study; face to face</i>	
Number of credits: <i>4</i>	
Recommended semester: <i>3rd semester in the 2nd year full-time</i> <i>7th semester in the 4th year part-time</i>	
Degree of study: <i>the 1st degree of study (Bachelor's degree)</i>	
Course prerequisites:	
Assessment methods: <i>Students during the course will work on the design project of molding, fusion welding process and transfer of heat in the process of welding. Second part of course is devoted to the base of plastic deformation. 2 projects of materials processing technology will be evaluated during the course.</i>	
Learning outcomes of the course unit: <i>Student has a set of theoretical and practical knowledges on processing technology in industry. Student can determine and solve problems of casting, welding, forming and machining processing.</i>	
Course contents: <ol style="list-style-type: none"> <i>1. Casting. Molding.</i> <i>2. Progressive methods of casting. Precise casting.</i> <i>3. Failures of casting.</i> <i>4. Fundamentals of welding</i> <i>5. Fusion welding processes</i> <i>6. Diffusion welding. Explosion welding.</i> <i>7. Introduction to forming.</i> <i>8. Forging processes</i> <i>9. Closed forging</i> <i>10. Open-die-forging</i> <i>11. Machining processes</i> <i>12. Grinding, honing and lapping</i> <i>13. High productivity machining</i> 	
Recommended of required reading: <ol style="list-style-type: none"> <i>1. http://sk.esab.net/sk/sk/education/processes-mma-smaw.cfm</i> <i>2. ASM Metals Handbook: Welding, Brazing and Soldering, 1993, Vol. 6. ISBN 0-87170-377-7(V.1)</i> <i>3. Letko, I. - Meško, J.- Vrábek, P.: Priemyselne technológie I. 1.vydanie. ZUSI Žilina. 2001. ISBN 80-968605-1-8.</i> 	
Language: <i>Slovak</i>	
Remarks:	

Evaluation history:					
A	B	C	D	E	FX
Lecturers: <i>doc. Ing. Marta Kianicová, PhD.,</i>					
Last modification: <i>31.03.2014</i>					
Supervisor: <i>prof. Ing. Darina Ondrušová, PhD.</i>					