

Information sheet for the course Theory of welding

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of special technology</i>					
Course unit code: <i>ŠST/I/3-27/d</i>			Course unit title: <i>Theory of welding</i>		
Type of course unit: <i>optional</i>					
Planned types, learning activities and teaching methods: <i>lectures - 2 hours weekly, laboratory seminars - 1 hour weekly face to face</i>					
Number of credits: 3					
Recommended semester: <i>2nd semester in the 1st year (full-time)</i> <i>2nd semester in the 1st year (part-time)</i>					
Degree of study: <i>II. (engineer)</i>					
Course prerequisites: <i>Material Science I., Material Science II.</i>					
Assessment methods: <i>100% attendance on seminars, 60 % attendance on lectures, successful submission of the seminar paper, proof of acquired knowledge from the subject with using oral and written examination</i>					
Learning outcomes of the course unit: <i>The student has knowledge of cross-field focused on the information of the theory of welding, brazing and cutting of metallic and non-metallic materials. To explain complexity of welding as a whole coupling materials in accordance with the theory of the electric arc.</i>					
Course contents: <i>Theory and technology of welding, brazing and thermal cutting of metals and non-metallic materials. The weldability of metals and their alloys - metallurgical, construction, operational. Metallurgical processes for welding. Welding machines and devices for welding. Additional materials for welding. Conventional and unconventional welding methods. Thermal cutting metal. Deformation, voltage states and their removal. Quality control, testing and evaluating the quality of welds. Vibration and heat treatment of welded joints. Technological welding processes - operational, action and type.</i>					
Recommended of required reading: <i>BLAŠČÍK, F.: Technológia tvárnenia, zlievania a zvárania, Skriptá, Alfa Bratislava, 1986</i> <i>ČABELKA, J.: Mechanické technológie - zváranie.</i> <i>ADAMKA, J.: Zváranie, spájkovanie a tepelné delenie kovov, SNTL Bratislava, 1988</i> <i>BENKO, B.: Technológia zvárania a zlievania, Skriptá, Stroj. fakulta STU Bratislava, 1996.</i> <i>BENKO, B.: Zvárania, Skriptá, Stroj. fakulta STU Bratislava, 1983</i>					
Language: <i>Slovak, English</i>					
Remarks:					
Evaluation history: <i>Total number of students being evaluated:</i>					
A	B	C	D	E	FX
0, 0	0,0	0,	0,0	0,0	0,0
Lecturers: <i>Assoc.prof. Ing. Harold Mäsiar, CSc.</i> <i>Ing. Daniela Antalová, PhD.</i>					
Last modification: <i>15.4.2014</i>					
Supervisor: <i>prof. Ing. Jiří Balla, CSc., guarantee of the study program "Special Mechanical Engineering Technology".</i>					