

Information sheet for the course Theory of Casting

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of special technology</i>					
Course unit code: <i>ŠST/II/3-26/d</i>			Course unit title: <i>Theory of Casting</i>		
Type of course unit: <i>optional</i>					
Planned types, learning activities and teaching methods: <i>Lectures - 1 hour weekly, laboratory seminars - 1 hour weekly face to face</i>					
Number of credits: 3					
Recommended semester: <i>1st semester in the 1st year (full-time)</i> <i>1st semester in the 1st year (part-time)</i>					
Degree of study: <i>II. (engineer)</i>					
Course prerequisites: <i>Technology of Casting</i>					
Assessment methods: <i>100% attendance on seminars, 60 % attendance on lectures, successful submission of the seminar paper - Casting design and drawing of selected cast including melting process.</i>					
Learning outcomes of the course unit: <i>The course will provide basic knowledge about theory of casting focused on mould properties, flow of the melt in mould, its cooling with using of modern aspect of casting production. Theory of metal crystallization.</i>					
Course contents: <i>The subject wide basic processes of casting technology following mathematical, physical and chemical principles and experimental results evaluation. Properties of casting moulds, melts, interaction metal-mould. Flow of melts in mould. Theory of metal crystallization. Cooling, escape of heat at solidification and cooling. Gravity casting and casting with using of higher pressures on melt. Modern aspects of casting technology.</i>					
Recommended of required reading: <i>BECHNÝ, L. GEDEONOVÁ, Z. - MÁSIAR, H.: Teória zlievania, Skriptá VŠDŠ Žilina, Alfa Bratislava, 1990.</i> <i>SLOVÁK, S. - RUSÍN, K.: Teorie slévání, SNTL Praha, 1990.</i> <i>FIALA, : Teorie slévání, Skriptá VUT Brno.</i> <i>VETÍŠKA, A. a kol.: Teoretické základy slévárenské technologie, SNTL Alfa, Praha 1972.</i>					
Language: <i>Slovak</i>					
Remarks:					
Evaluation history: <i>Total number of students being evaluated:</i>					
A	B	C	D	E	FX
14,6	16,81	38,05	20,8	9,73	0,00
Lecturers: <i>Assoc.prof. Ing. Harold Mäsiar, CSc.</i> <i>Ing. Igor Barényi, 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>					