

Information sheet for the course
Computer simulation of technological processes

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of special technology</i>					
Course unit code: <i>STaM/D/3-54/d</i>			Course unit title: <i>Computer simulation of technological processes</i>		
Type of course unit: <i>optional</i>					
Planned types, learning activities and teaching methods: <i>1 lecture hour, 2 lab hour per week, attendance teaching method.</i>					
Number of credits: <i>5</i>					
Recommended semester: <i>1st semester in the 1st year</i>					
Degree of study: <i>III.</i>					
Course prerequisites: <i>none</i>					
Assessment methods: <i>Final assessment: test in a written test with a focus on practical skills obtained in laboratory exercises.</i>					
Learning outcomes of the course unit: <i>The student will acquire a deep cross theoretical knowledge and practical experience in the field of numerical methods and their applications in the analysis and optimization of parameters of technological processes with possible application in science and research.</i>					
Course contents: <i>Special state of theoretical and practical disciplines. Numerical methods for solving problems of continuum mechanics and thermodynamics. Tools for computer simulation technology. Practical application of computer simulation technology.</i>					
Recommended of required reading: [1] ZIENKEWICZ, O.G. - TAYLOR, R.L.: <i>ELEMENT METHOD, ELSEVIER SCIENCE & TECHNOLOGY BOOKS, 2000.</i> [2] TRBIZAN, K.: <i>CASTING SIMULATION, WFO, 2002.</i> [3] <i>PROCAST USER'S MANNAL & TECHNICAL REFERENCE, UES SOFTWARE INC., 2002.</i> [4] REDDY, J.N. - GARTLING, D.K.: <i>FINITE ELEMENT METHOD IN HEAT TRANSFER AND FLUID DYNAMICS. CRC PRESS, 2000.</i> [5] SHOSHICHI KOBAYASHI S.OH. - TAYMAN ALTAN SOO-IK OH.: <i>METAL FORMING AND THE FINITE ELEMENT METHOD. OXFORD UNIVERSITY PRESS, 1989.</i>					
Language: <i>Slovak</i>					
Remarks: <i>The subject is provided in the winter semester of the first year of full-time study. Compulsory subject.</i>					
Evaluation history <i>Total number of students being evaluated: 1</i>					
A	B	C	D	E	FX
0	100,0	0	0	0	0
Lecturers: <i>Assoc. prof. Ing. Harold Mäsiar, CSc. - lecturer</i>					
Last modification: <i>15.4.2014</i>					
Supervisor: <i>prof. Ing. Vojtěch Hrubý, CSc., guarantee of the study program "Technologies and Materials in Mechanical Engineering", Assoc. prof. Ing. Ondrej Híreš, CSc., Assoc. prof. Ing. Viliam Cibulka, CSc. – together-guarantors.</i>					