

Information sheet for the course Experimental Methods in Material Engineering I

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of Industrial Technologies in Púchov</i>					
Course unit code: <i>PP-P-11</i>			Course unit title: <i>Experimental Methods in Material Engineering I</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 hours weekly/26 hours per semester of study; face to face</i>					
Number of credits: <i>5</i>					
Recommended semester <i>the 2nd semester in the 1st year of the full-time form of study,</i> <i>the 5th semester in the 3rd year of the part-time form of study,</i>					
Degree of study: <i>the 1st degree of study (Bachelor's degree)</i>					
Course prerequisites: <i>none</i>					
Assessment methods: <i>Student must elaborate semestral work and present it during semester. There will be one test on the end semester. Active presence on the laboratory tutorials.</i>					
Learning outcomes of the course unit: <i>The student knows the basic principles of selected experimental methods used for testing the properties of materials and the detection of defects in materials and products.</i>					
Course contents: <i>Static testing of materials, periodic and aperiodic testing, dynamic testing of materials, dynamic mechanical analysis, theory of acoustic waves, , theory of elastic waves, non-destructive material testing with ultrasonic, fatigue and creep of materials, wear testing.</i>					
Recommended of required reading: <i>P. Košťál: Fyzikálne základy materiálového inžinierstva I, ZUSI Žilina 2000.</i> <i>Ptáček, L. a kol.: Nauka o materiálu I. Akademické nakladatelství CERM, Brno, 2001.</i> <i>P. Košťál a kol.: Využitie ultrazvukových vln pri štúdiu povrchov a rozhraní, ŽU Žilina 1998.</i>					
Language: <i>Slovak</i>					
Remarks:					
Evaluation history: <i>0</i>					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
Lecturers: <i>doc. Ing. Marta Kianicová, PhD., Ing. Dana Bakošová, PhD., Ing. Rudolf Valášek</i>					
Last modification: <i>31.03.2015</i>					
Supervisor: <i>doc. Ing. Ján Vavro, PhD.</i>					