

Information sheet for the course Operation Diagnostics and Defectoscopy

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of Industrial Technologies in Púchov</i>					
Course unit code: <i>MT-P-35</i>			Course unit title: <i>Operation Diagnostics and Defectoscopy</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 6th semester in the 3rd year of the full-time form of study,</i> <i>the 8th semester in the 4th 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 selected experimental methods of diagnosis and non-destructive materials.</i>					
Course contents: <i>Methods of measurement operating parameters of the machine.</i> <i>Wear monitoring – tribodiagnostics.</i> <i>The methods used for detecting fatigue damage, cracks and internal discontinuities - destructive evaluation.</i> <i>Methods of measurement surface temperature of objects – termodiagnosics,</i> <i>Methods based on sensing and analysis of vibrations of objects - vibrodiagnosics,</i> <i>Electrodiagnosics.</i> <i>Corrosion diagnostics</i> <i>Acoustic imaging (noise, sound intensity, ultrasound ...).</i> <i>Basic destructive methods - visual method, capillary method, magnetic method, electromagnetic defectoscopy eddy current, ultrasonic methods.</i> <i>Acoustic methods, Radiographic testing, infrared flaw detection, interferometry in flaw detection.</i>					
Recommended of required reading: <i>Balog, J.- Chovanec, .A.: Technická diagnostika - 1.vyd. - Trenčín TnUAD, 2003. - 115 s. - ISBN 80-88914-66-3.</i> <i>Kreidl, M.- Šmíd, R.: Technická diagnostika : Senzory-Metody-Analýza signálu- 1. vyd. - Praha : Ben, 2006. - 406 s., ISBN 80-7300-158-6.</i>					
Language: <i>Slovak</i>					
Remarks:					
Evaluation history: <i>60</i>					
A	B	C	D	E	FX
31.67	45.0	15.0	3.33	3.33	1.67
Lecturers: <i>doc. Ing. Marta Kianicová, PhD., Ing. Dana Bakošová, PhD.</i>					

Last modification: <i>31.03.2014</i>
Supervisor: <i>doc. Ing. Marta Kianicová, PhD.</i>