Information sheet for the course
Operation Diagnostics and Defectoscopy

University: *Alexander Dubček University of Trenčín*

Faculty: *Faculty of Industrial Technologies in Púchov*

Course unit code: *PP-P-34*

Course unit title: *Operation Diagnostics and Defectoscopy*

Type of course unit: *compulsory*

Planned types, learning activities and teaching methods:

Lecture: 2 hours weekly/26 hours per semester of study; face to face
Seminar: 0
Laboratory tutorial: 2 hours weekly/26 hours per semester of study; face to face

Number of credits: *5*

Recommended semester

the 6th semester in the 3rd year of the full-time form of study,
the 6th semester in the 3rd year of the part-time form of study,

Degree of study: *the 1st degree of study (Bachelor's degree)*

Course prerequisites: *none*

Assessment methods:

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.

Learning outcomes of the course unit:

The student knows the selected experimental methods of diagnosis and non-destructive materials.

Stručná osnova predmetu:

Methods of measurement operating parameters of the machine.
Wear monitoring – tribodiagnostics.
The methods used for detecting fatigue damage, cracks and internal discontinuities - destructive evaluation.
Methods of measurement surface temperature of objects – termodiagnostics,
Methods based on sensing and analysis of vibrations of objects - vibrodiagnostics,
Electrodiagnostics.
Corrosion diagnostics
Acoustic imaging (noise, sound intensity, ultrasound ...).
Basic destructive methods - visual method, capillary method, magnetic method, electromagnetic defectoscopy eddy current, ultrasonic methods.
Acoustic methods, Radiographic testing, infrared flaw detection, interferometry in flaw detection.

Recommended of required reading:

Balog, J.- Chovanec, .A.: Technická diagnostika - 1.vyd . - Trenčín TnUAD, 2003. - 115 s. - ISBN 80-88914-66-3.
Kreidl, M.- Šmíd, R.: Technická diagnostika : Senzory-Metody-Analýza signálu- 1. vyd. - Praha : Ben, 2006. - 406 s., ISBN 80-7300-158-6.

Language: *Slovak*

Remarks:

Evaluation history: *60*

A	B	C	D	E	FX
31.67	45.0	15.0	3.33	3.33	1.67

Lecturers:	*doc. Ing. Marta Kianicová, PhD., Ing. Dana Bakošová, PhD.*
Last modification:	*31.03.2015*
Supervisor:	*doc. Ing. Ján Vavro, PhD.*