

## Information sheet for the course Diagnostics of Machinery and Equipment

<b>University:</b> <i>Alexander Dubček University of Trenčín</i>					
<b>Faculty:</b> <i>Faculty of special technology</i>					
<b>Course unit code:</b> <i>ÚŠMT/I/2-23/d</i>			<b>Course unit title:</b> <i>Diagnostics of Machinery and Equipment</i>		
<b>Type of course unit:</b> <i>compulsory</i>					
<b>Planned types, learning activities and teaching methods:</b> <i>Lecture 2 hours weekly, seminar 2 hours weekly</i>					
<b>Number of credits:</b> <i>5</i>					
<b>Recommended semester:</b> <i>4<sup>st</sup> semester in the 2<sup>nd</sup> year (full-time) 5<sup>th</sup> semester in the 3<sup>rd</sup> year (part-time)</i>					
<b>Degree of study:</b> <i>II. (engineer)</i>					
<b>Course prerequisites:</b> <i>none</i>					
<b>Assessment methods:</b> <i>100 % attendance - seminars, fulfillment of laboratory exercises goals, 60 % attendance - lectures, proving the knowledge of subject content in written and oral examination.</i>					
<b>Learning outcomes of the course unit:</b> <i>Student has a cross-sectional view and knowledge about technical diagnostics and individual diagnostic methods. Furthermore, acquires knowledge and become familiar with diagnostics of engine, transmission and chassis, groups, subgroups and components diagnostics, performance parameters and clearances in mechanisms, tightness of workspaces... Parallel and serial diagnostics of electrical and electronic systems.</i>					
<b>Course contents:</b> <i>Basic principles of technical diagnostics. Diagnostics systems, objects models. Recognition in diagnostics. Methods, organization and sources of technical diagnostics. Physical methods of technical diagnostics, noise, acoustic emission, vibration, temperature, tribotechnical methods, flaw detection methods. Technical diagnostics applications in the field of special mobile equipment, automobiles and machinery. Diagnostics of engine, transmission and chassis, groups, subgroups and components diagnostics, performance parameters and clearances in mechanisms, tightness of workspaces... Parallel and serial diagnostics of electrical and electronic systems.</i>					
<b>Recommended of required reading:</b> <i>BALOG, J. - CHOVANEC, A. - KIANICOVÁ, M.: Diagnostika strojov a zariadení. Trenčín 2003. VLK, F.: Automobilová technika príručka, 1. vydání. Nakladatelství a vydavatelství VLK, Brno2003, ISBN 80 - 238 - 9681 - 4. VLK, F.: Zkoušení a diagnostika motorových vozidel, 2. vydání, Nakladatelství a vydavatelství VLK, Brno2005, ISBN 80 - 239 - 3717 - 0. JAMRICHOVÁ, Z., STODOLA, J., STODOLA, P. Diagnostika strojov a zariadení. Vydavateľstvo EDIS, Žilina 2011. ISBN 978-80-554-0385-4.</i>					
<b>Language:</b> <i>Slovak</i>					
<b>Remarks:</b> <i>Compulsory subject</i>					
<b>Evaluation history:</b> <i>Total number of students being evaluated:</i>					
A	B	C	D	E	FX
<b>Lecturers:</b> <i>prof. Ing. Jiří Stodola, DrSc. - lecturer Ing. Andrej Lysák, PhD. - instructor</i>					
<b>Last modification:</b> <i>15.4.2014</i>					
<b>Supervisor:</b> <i>prof. Ing. Alexej Chovanec, CSc., guarantee of the study program „Maintenance and Repair of Special Mobile Technology“.</i>					

