

**Information sheet for the course
Modern concepts of maintenance**

University: <i>Alexander Dubček University of Trenčín</i>	
Faculty: <i>Faculty of special technology</i>	
Course unit code: <i>UŠMT/I/2-43/d</i>	Course unit title: <i>Modern concepts of maintenance</i>
Type of course unit: <i>compulsory</i>	
Planned types, learning activities and teaching methods: <i>2 hours of lectures per week, 2 hours of exercise per week</i>	
Number of credits: <i>6</i>	
Recommended semester: <i>1st semester in the 1st year (full-time) 2nd semester in the 1st year (part-time)</i>	
Degree of study: <i>II. (engineer)</i>	
Course prerequisites: <i>none</i>	
Assessment methods: <i>100% participation in laboratory exercises, min. 80% attendance at lectures, meet the objectives of the laboratory exercises, correct preparation laboratory and individual works, demonstrate knowledge of subject content in written and oral examination</i>	
Learning outcomes of the course unit: <i>The student will acquire information and knowledge application management tools of Lean Maintenance, Total Productive Maintenance, Maintenance focused on reliability. You should be able to apply various tools, methods and principles of modern maintenance strategies based on lean maintenance management practice. Utilize knowledge of monitoring, controlling, audits, outsourcing. Benchmarking the management of maintenance processes and staff. To establish and maintain the necessary documentation. To realize the objective of continuous improvement of maintenance.</i>	
Course contents: <i>Modern methods, tools and trends maintenance access. The application of modern management methods in Lean maintenance. The application of quality management tools in lean maintenance. Other tools of quality management. Increasing CEZ - overall equipment efficiency. Total Productive Maintenance. Autonomous Maintenance Program. Programs scheduled maintenance. Implementation of TPM. Program planning. Visualization. Documentation. Education and training. Reliability of Maintenance - Reliability Centered Maintenance. Information on the design, construction and operation of the system condition monitoring equipment. Risk assessment and their impact on safety, environmental measures. Controlling. Audit. Outsourcing. Benchmarking.</i>	
Recommended of required reading: <i>VIRČÍKOVÁ, E.: Integrované manažérske systémy, ELFA, s.r.o., Košice, Hutnícka fakulta Technickej univerzity v Košiciach, 2007, ISBN 978 - 80 - 8073 - 761 - 0 KOŠTURIAK J. - FROLÍK Z. a kolektív: Štíhly a inovatívni podnik, Alfa Publishing, 2006, ISBN 80-86851-38-9 GREGOR, M., KOŠTURIAK, J.: Just in time. - Výrobná filozofia pre dobrý management. Elita, Bratislava, 1994. ISBN 80-85323-64-8. MATEIDES, A. a kolektív: Manažérstvo kvality. Ing.Miroslav Mračko, Bratislava, 2006, str. 751. ISBN 80-8057-656-4 NENADÁL, J.- a kol.: Moderní systémy řízení jakosti. Management Press, Praha, 2002. 282 strán. ISBN 80-7261-071-6 MAŠÍN, J., VYTLAČIL, M.: Nové cesty k vyšší produktivitě : metody průmyslového inženýrství. Institut průmyslového inženýrství, 1. vyd. Liberec, 2000. 311 s. ISBN 80-902235-6-7.</i>	
Language: <i>Slovak</i>	
Remarks: <i>Compulsory course</i>	
Evaluation history:	

<i>Total number of students being evaluated:</i>					
A	B	C	D	E	FX
Lecturers: <i>prof. Ing. Alexej Chovanec, CSc.</i> <i>Ing. Alena Breznická, PhD.</i>					
Last modification: <i>15.4.2014</i>					
Supervisor: <i>prof. Ing. Alexej Chovanec, CSc., guarantee of the study program „Maintenance and Repair of Special Mobile Technology“.</i>					