

Information sheet for the course

Technology Operation and maintenance of special mobile equipment

University: <i>Alexander Dubček University of Trenčín</i>	
Faculty: <i>Faculty of special technology</i>	
Course unit code: <i>UŠMT/I/2-45/d</i>	Course unit title: <i>Technology Operation and maintenance of special mobile equipment</i>
Type of course unit: <i>compulsory</i>	
Planned types, learning activities and teaching methods:	
Number of credits: <i>1</i>	
Recommended semester: <i>4st semester in the 2nd year (full-time) 6th semester in the 3rd year (part-time)</i>	
Degree of study: <i>II. (engineer)</i>	
Course prerequisites: <i>UŠMT/I/2-43/d Modern concepts of maintenance, UŠMT/I/2-42/d Operation and disposal techniques, UŠMT/I/3-51/d Repair technologies</i>	
Assessment methods: <i>Prerequisites Completed state examinations. Handing over of the thesis with the terms in time.</i>	
Learning outcomes of the course unit: <i>Verification of independence, professional expertise in the field of theoretical and practical use of procedures, methods and means of the support of knowledge for solving the problems of modern concepts of maintenance, operation and disposal techniques, applications repair technologies in the field of study of knowledge Maintenance of machines and equipment for the second stage of study</i>	
Course contents: <i>The modern concept of maintenance - 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. Raising the overall efficiency of the equipment. 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. Kontrolling. Audit. Outsourcing. Benchmarking. Operation and disposal techniques - Effect of human factor on the operation of machinery and equipment. Ensuring competence. Training. The impact properties of industrial products and requirements for safety, efficiency, economy of operation. Requirements for documentation and technical condition of machinery and equipment. Control activities and standards. Operating documentation. Degradation effects technology. Effect of temperature. Changing the properties of selected components of vehicles in service. Traffic on the road. Transportation. Transportation of oversized loads. Characteristics of operation. Planning the operation of machinery and equipment. Material ensuring operation of machinery and equipment. Statistical evaluation of consumption, standard setting. Optimization and recovery planning and inventory. Control activities operate machinery. The negative effects of vehicles on the environment. Production, categorization and disposal. Waste management. Repair Technology - Knowledge and ability to use knowledge of engineering technology, manufacturing technology and materials so that the repair process can be realized respectively. designed an appropriate procedure that systematically leads to the solution. Requirements for consistent use of performance values of materials in terms of quality and effectiveness of repairs, especially when welding. New methods and technological procedures those are appropriate in the repair of modern automotive units and their components. It should be noted that at present the repair is much more knowledge of engineering technology as the actual production parts.</i>	
Recommended of required reading: <i>VIRČÍKOVÁ, E.: Integrované manažérske systémy, ELFA, s.r.o., Košice, Hutnícka fakulta</i>	

Technickej univerzity v Košiciach, 2007, ISBN 978-80-8073 -761-0.

RAKYTA, M.: Údržba ako zdroj produktivity. Slovenské centrum produktivity, Žilina, 2002. ISBN 80-968324-3-3.

CHOVANEK, A. a kol.: Komplexná starostlivosť o stroje a zariadenia [vysokoškolská učebnica]. 1. vyd. - Trenčín : TnUAD, 2008. - 281 s. - ISBN 978-80-8075-351-1.

Zákon č. 725/2004 Z. z. o podmienkach prevádzky vozidiel v premávke na pozemných komunikáciách.

Language: *Slovak*

Remarks:

Subject State Examination

Evaluation history:

Total number of students being evaluated:

A	B	C	D	E	FX

Lecturers: *prof. Ing. Alexej Chovanec, CSc., asoc. prof. Ing. Zuzana Jamrichová, PhD., Ing. Alena Breznická, PhD., Ing. Lukáš Bridík, PhD., asoc. prof. Ing. Harold Mäsiar, CSc., Ing. Ján Zápotočný*

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Supervisor: *prof. Ing. Alexej Chovanec, CSc., guarantee of the study program „Maintenance and Repair of Special Mobile Technology“*