

Information sheet for the course Measuring and testing of technology

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of special technology</i>					
Course unit code: <i>ŠST/I/1-47/d</i>			Course unit title: <i>Measuring and testing of technology</i>		
Type of course unit: <i>compulsory</i>					
Planned types, learning activities and teaching methods: <i>Lecture 2 hours per week, 1 hour per week of laboratory exercise face to face</i>					
Number of credits: <i>4</i>					
Recommended semester: <i>2nd semester in the 1st year (full-time)</i> <i>4th semester in the 2st year (part-time)</i>					
Degree of study: <i>II. (engineer)</i>					
Course prerequisites: <i>ŠST/B/3-40/d Engineering metrology, ŠST/B/1-84/d Technical cybernetics, ŠST/B/1-41/d Special technology</i>					
Assessment methods: <i>100% participation and active creative work in laboratory exercises, the fulfilment of the set objectives of the laboratory exercises, the mastery of technical terminology, min. 60% attendance at lectures. Two times during the semester written test. In the interim, it is necessary to get at least 30 points. Final evaluation: test in the form of a written test, with the emphasis on the theoretical knowledge of the subject and the oral part of the exam. Out of a total number of 30 points is needed to evaluate the minimum raise: (E)-20 points, (D)-22 points, (C)-24 points, (B) — 26 points, (A)-28 points.</i>					
Learning outcomes of the course unit: <i>The student has knowledge of the department, with a focus on cross-cutting application uses the basic principles of remote sensing and processing of measured quantities, specifications of main parts, the accuracy of the measurements to the architecture of the measurement chains. In addition to the subjects of specialization to make students acquire knowledge of technical Diagnostics and methods of testing special mobile equipment.</i>					
Course contents: <i>Measuring and testing of equipment within the meaning of the applicable legislative standards. The use of the methods of technical Diagnostics in a special and mobile technology. The concept of the experiment and the methods of processing results. The importance of measuring and testing - measuring chains, methodology of testing techniques. Characteristics of elements and principles of measuring and testing techniques of analysis of string measuring. Sensors and senzorová technique. Methods for measuring, testing, measurement, registration and evaluation instruments and apparatus. Special kinds of tests, the tests in extreme climates. Safety principles for testing techniques to test facilities.</i>					
Recommended of required reading: <i>FIŠER, M., LIPTÁK, P., PROCHÁZKA, S., MACKO, M., JOZEFEK, M.: Automatické zbrane. Meranie a skúšanie. Trenčín, TnUAD v Trenčíne, 2007. ISBN 80-8075-089-0.</i> <i>JOZEFEK, M., LIPTÁK, P.: Meranie a skúšanie špeciálnej techniky. Trenčín, TnU AD v Trenčíne, 2005. ISBN 80-8075-097-1.</i> <i>BALÁTEĚ, J.: Automatické řízení. Ben Praha 2004. ISBN 80-7300-148-9</i> <i>ĎAĎO, S. - KREIDL, M.: Senzory a měřicí obvody. ČVUT, Praha, 1999</i> <i>HAMERLÍČEK, J.: Detekce a detektory optického záření. VA, Brno, 1995</i>					
Language: <i>Slovak</i>					
Remarks: <i>The subject is provided in the summer semester in 1. year of full-time study. Subject is required.</i>					
Evaluation history: <i>Total number of students being evaluated: 188</i>					
A	B	C	D	E	FX
20,74	14,36	20,74	28,72	15,43	0,00

Lecturers: *doc. Ing. Peter Lipták, CSc. - lecturer,
Ing. Ivan Kopecký, PhD. - instructor*

Last modification: *15.4.2014*

Supervisor: *prof. Ing. Jiří Balla, CSc., guarantee of the study program “Special Mechanical Engineering Technology”.*