

Information sheet for the course Optimization of Designs

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of special technology</i>					
Course unit code: <i>ŠST/I/4-48/d</i>			Course unit title: <i>Optimization of Designs</i>		
Type of course unit: <i>compulsory</i>					
Planned types, learning activities and teaching methods: <i>2 hours of lectures / exercises one hour per week face to face</i>					
Number of credits: <i>4</i>					
Recommended semester: <i>4th semester in the 2nd year (full-time)</i> <i>6th semester in the 3rd year (part-time)</i>					
Degree of study: <i>II. (engineer)</i>					
Course prerequisites: <i>none</i>					
Assessment methods: <i>Conditions for passing the subject: Continuous assessment: Min. 60% attendance at lectures, exercises max. 2 justified by the absence test. The granting of credit should be submitted drawn semester assignment of the quality you get min. 20 points from the exercise of the possible 40 points and submit to the assessment workbook graphic works. Final rating: Test in a written test. Rating Scale user from a total of 100 points: (E) - 56 points, (D) - 65 points (C) - 74 points (B) - 83 points (A) - 92 points.</i>					
Learning outcomes of the course unit: <i>Learning outcomes of the course unit: The student has knowledge of cross-field focused on the basic knowledge of optimization of construction work. Students are able to optimally designed and constructed products in terms of economic policy, durability, service life and operational reliability, optimum strength to do the calculations for strength, rigidity and weight.</i>					
Course contents: <i>Definition of optimization. Optimizing the planning and design. Formulation optimization problems. Design of optimal alternative solutions design tasks. Classification of optimization problems. Longevity and durability, dependability, cost of production, unification. Methodology for design, structural heredity. The weight and material utilization, rational sections, the same strength, rigidity. Evaluation of the structure.</i>					
Recommended of required reading: <i>ČILLÍK, L., ŽARNAY, M.: Metodika konštruovania. EDIS ŽU Žilina, 2001. ORLOV, P.I.: Základy konštruovania. ALFA Bratislava, 1979. ŽMINDÁK, M., SÁGA, M., TVARUŽEK, J., HUSÁR, Š.: Optimalizácia mechanických sústav. Žilina: Žilinská univerzita, 2000.</i>					
Language: <i>Slovak</i>					
Remarks: <i>The subject is provided in the summer semester in the second year of full-time study. Subject is required.</i>					
Evaluation history: <i>Total number of students being evaluated: 464</i>					
A	B	C	D	E	FX
20.26	1.87	41.59	14.22	9.05	0.0
Lecturers: <i>prof. Ing. Jozef Turza, CSc. - lecturer</i> <i>Ing. Peter Čelko, PhD. - assistant of lecturer</i>					
Last modification: <i>15.4.2014</i>					
Supervisor: <i>prof. Ing. Jiří Balla, CSc., guarantee of the study program "Special Mechanical Engineering Technology".</i>					