Information sheet for the course
The theory and technology of machining processes, forming and surface treatment

University: *Alexander Dubček University of Trenčín*	
Faculty: *Faculty of special technology*	
Course unit code: *STaM/D/3-38/e*	**Course unit title:** *The theory and technology of machining processes, forming and surface treatment*
Type of course unit: *optional*	
Planned types, learning activities and teaching methods: *Lectures three hours per week / laboratory exercises 1 hour per week, part-time method.*	
Number of credits: *15*	
Recommended semester: *1st and 2nd semester in the 1st year*	
Degree of study: *III.*	
Course prerequisites: *none*	
Assessment methods: *100% attendance on seminars, 60 % attendance on lectures, successful submission of the seminar paper, proof of acquired knowledge from the subject with using oral and written examination.*	
Learning outcomes of the course unit: *Based on the deep knowledge and transversal theory of technological processes of machining, forming and finishes the student is able to solve complex technological processes of workpieces and vytvarka, including finishes. Mastering the links between materials, technology and quality of finished products*	
Course contents: E*cology machining technology. High Speed Machining - HSM, HSC. Machining of hardened materials in instruments with a defined cutting edge. Simulation roughness of machined surface. Simulation of wear of cutting tools. Laws indexing workpiece for machining. Methods dimensional and energy analysis and their application in analytical theory rezania.Medzné states and the development of mass transport. Viscous flows and ekvikohézia. Of combustion in elastic-plastic housings. Mechanical and thermal effects on metals and alloys. Parametric forming. Forming the metallurgical bond. Ekosociotechnické objects and ergonomics (risks and human factors). Theory and principles of modern finishes ferrous and non-ferrous metals.*	
Recommended of required reading: *HÍREŠ, O. - Mäsiar, H.: Technológia tvárnenia. VŠ skriptá. TnUAD Trenčín, 2002* *HÍREŠ, O.: Povrchové úpravy, skriptá, TnU AD Trenčín, 2004* *JANÁČ, A. - BÁTORA, B. - BARÁNEK, I. - LIPA, Z.: Technológia obrábania, STU MtF Bratislava, 2004*	
Language: *Slovak*	
Remarks:	

Evaluation history

Total number of students being evaluated:

A	B	C	D	E	FX
0, 0	0,0	0,	0,0	0,0	0,0

Lecturers:	*Assoc. prof. Ing. Harold Mäsiar, CSc.*
Last modification: *15.4.2014*	
Supervisor: *prof. Ing. Vojtěch Hrubý, CSc., guarantee of the study program "Technologies and Materials in Mechanical Engineering", Assoc. prof. Ing. Ondrej Híreš, CSc., Assoc. prof. Ing. Viliam Cibulka, CSc – together-guarantors.*	