

Add. 3		Course program for the first, second and third degree of studies			
1.	Course title	Basic of metal cutting theory			
2.	Code	251			
3.	Study group(s)	PI			
4.	The organizer of the study program (unit, institute, department)	Faculty of Mechanical Engineering - Skopje, Ss. Cyril and Methodius University in Skopje			
5.	Level (first, second, third degree)	First			
6.	Academic year / semester	winter	7.	Number of ECTS credits	6
8.	Professor	Professor Mikolaj Kuzinovski, PhD			
9.	Preconditions for enrolling the course	not have			
10.	Purpose of the course program (competences): Getting of the knowledge in the field of material removal process. Understanding of the phenomena of macro, meso and micro levels in the zone of metal transformation and theory of chip formation. Also, getting knowledge in the field of experimental methods for research of physical phenomena and technological effects.				
11.	Contents of the course program: Study of the physics and mechanics of the machining process by material removal. Vibration and thermal phenomena in the cutting process. Mechanisms and criteria of the tool wear and metal workability. Analysis, modeling and simulation of physical phenomena and technological effects on the machined surface. Experimental methods for the study of the metal transformation process and chip formation.				
12.	Study methods: Interactive teaching, auditory and /or laboratory practical, individual and / or team working on the project assignments, self-study.				
13.	Total available time period	6 ECTS x 30 hours = 180 hours			
14.	Available time assessment	30 + 30 + 30 + 30 + 60 = 180 hours			
15.	Educational activity module	15.1.	Teaching lectures	30 hours	
		15.2.	Practice, seminars, team work	30 hours	
16.	Other activity module	16.1.	Project assignments	30 hours	
		16.2.	Selfrunning assignments	30 hours	
		16.3.	Home studying	60 hours	
17.	Evaluation methods				
	17.1.	Tests		70 points	
	17.2.	Projects		20 points	
	17.3.	Activity and participation		10 points	
18.	Evaluation criteria (points and marks)	Under 50		5 (five) (F)	
		51 - 60 points		6 (six) (E)	
		61 - 70 points		7 (seven) (D)	
		71 - 80 points		8 (eight) (C)	
		81 - 90 points		9 (nine) (B)	
		91 - 100 points		10 (ten) (A)	
19.	Signature and final exam requirements	The realized activities 15.2; 16.1 and 16.2			
20.	Language used for performing the teaching	Macedonian language			
21.	Method used for following the teaching quality	The polling and other forms of continuous evaluation			
22.	References				

	22.1.	Main references				
		No.	Author	Title	Publisher	Year
		1.	M. Kuzinovski	Basic of metal cutting theory (reproduced lectures)	Faculty of mechanical engineering-Skopje	2012
		2.	V. Pavlovski	Metal cutting theory	Ss. Cyril and Methodius University in Skopje	1993
	3.					
	22.2.	Additional references				
		No.	Author	Title	Publisher	Year
		1.				