

Add. 3		Course program for the first, second and third level (cycle) of studies			
1.	Course title	Manufacturing technologies			
2.	Code	279			
3.	Study group(s)	PI, TML, TI, HIMV, MSKI, IIM, MV, EE, MHT, AUS, IND, DK			
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)	First			
6.	Academic year / semester	Winter	7.	ECTS credits	6
8.	Instructor	Prof D-r Atanas Kochov Prof D-r Valentina Gecevska			
9.	Prerequisites	N/A			
10.	Course objectives (competences): To gain knowledge of the machines, tools and manufacturing technologies for the metal processing industry.				
11.	Course content: Introducing the concept and structure of production systems and processes, the study of metal processing production technologies by metal cutting, plastic deformation and unconventional processing procedures. Introducing the characteristics of competitive engineering. Technological features of classical and numerical controlled machines, types of applied tools and their technological features.				
12.	Study methods: Interactive lectures, exercises auditory and / or laboratory, individual and / or team working on project assignments, self-study.				
13.	Total hours	6 ECTS x 30 hours = 180 hours			
14.	Hours allocation per activity:	30 + 30 + 20 + 20 + 80 = 180 hours			
15.	Lectures/Lab	15.1.	Lectures	30 hours	
		15.2.	Lab (student work)	30 hours	
16.	Project Work/Assignments	16.1.	Project assignments	20 hours	
		16.2.	Individual assignments	20 hours	
		16.3.	Self-study	80 hours	
17.	Points/Marks:				
	17.1.	Tests	70 points		
	17.2.	Projects	20 points		
	17.3.	Attendance	10 points		
18.	Grading scale	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.	Prerequisites for taking the final exam	Realized activity 17.2			
20.	Language of Instruction	Macedonian			
21.	Course evaluation	Student questionnaire			

22.	Textbooks				
	22.1.	Instruction materials			
		No.	Author	Title	Publisher

		1.	S. Kalpakian	Manufacturing Engineering and Technology	Pearson, USA	2009
		2.	V. Gecevska, A. Kochov	Manufacturing Technology	Intern Script Faculty of Mechanical Engineering - Skopje	2007
		3.	Lj. Dudeski, J. Caloska	Unconventional Manufacturing Process	Internal script, Faculty of Mechanical Engineering - Skopje	2010
		Supplemental Instruction Materials				
	22.2.	No.	Author	Title	Publisher	Year
		1.	Ostwald Ph., Munoz J.	Manufacturing processes and systems	J.Wiley& Sons, USA	2005
		2.				