Add. 3		Course program for the first, second and third degree of studies			
1.	Course title	Technological systems and maintenance			
2.	Code	317			
3.	Study group(s)	PE			
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	Summer	7.	Number of ECTS credits	6
8.	Professor	Ass. Prof. Gligorce Vrtanoski			
9.	Preconditions for enrolling the course	None			
10.	Purpose of the course program (competences): Introduction with technological systems, their exploitation, safety and maintenance. Organizing and managing issues of maintenance and safety in companies.				
11.	Contents of the course program: Introduction and classification of technological systems. Basics of precision on the machines. Safety in the design of technology systems. Safety in exploitation process. Principles and planning of maintaining of the technological systems. Diagnostics in the process of exploitation. Test instruments and concept of the errors analysis. Computer-aided technologies in safety and maintenance of the technological systems.				
12.	Study methods: Interactive teaching, Laboratory and/or in-class exercises, individual and/or team work on projects, 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		40 hours
		16.2.	Selfrunning assignments		20 hours
		16.3.	Home studying		60 hours
17.	Evaluation methods				
	17.1.	Tests			60 points
	17.2.	Projects			30 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	Realized activity 17.2			
20.	Language used for performing the teaching	Macedonian language			
21.	Method used for following the teaching quality	Surveys and other forms of continuous evaluation			
22.	References				

			Main references			
	22.1.	No.	Author	Title	Publisher	Year
		1.	Gligorce Vrtanoski	Non-authorized for Technological systems and maintenance	Faculty of Mechanical Engineering - Skopje	
		2.	Vladimir Dukovski	Design of metal cutting machines	UKIM	2003
		3.	Vasil Strezov	Machines for plastic deformation	UKIM	
	22.2.	Additional references				
		No.	Author	Title	Publisher	Year
		1.	Vladimir Dukovski	Maintenance of metal cutting machines	UKIM	
		2.	Richard Palmer	Maintenance planning and scheduling handbook	McGraw Hill	2006
		3.				