

Add. 3		Course program for the first, second and third degree of studies			
1.	Course title	Metrology and measurement systems			
2.	Code	204			
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 for the metrological characteristics of measurement tools and machines. Capable of the conducting measurements and processing the results of measurements in manufacturing processes.				
11.	Contents of the course program: Introduction to the basic concepts and terminology of metrology. Measurement methods. Classification of measurement errors and measurement tools and machines. Geometrical tolerances and measurements of the geometrical sizes of parts. Deviation of the shape and position. Managment of the measurement tools and machines. Computer-aided measurements and processing of the measurement results.				
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

		1.	M. Kuzinovski	Metrology and Measurement systems (reproduced lectures)	Faculty of mechanical engineering-Skopje	2012
		2.	W. Płowucha	Metrologia warsztatowa	Poland	1993
		3.	W. Jakubiec	Metrologia wielkości geometrycznych	WNT, Poland	1999
		Additional references				
	22.2.	No.	Author	Title	Publisher	Year
		1.				