Add. 3		Course program for the first, second and third level (cycle) of studies

1.	Course title	Numerical Mathematics			
2.	Code	230			
3.	Study group(s)	Production Informatics, Construction Design			
4.	The organizer of the study program (unit, institute, department)	Institute of Production Engineering; Institute of Hydraulics, Pneumatics and Automatics Engineering; Institute of Welding and Welded Constructions			
5.	Level (first, second, third)	First			
6.	Academic year / semester	First / summer	7.	ECTS credits	6
8.	Instructor	Ljubica Stefanova			
9.	Prerequisites	None			
10.	Course objectives (competences): Introduction to basics of linear algebra and numerical calculus and their application in engineering practice.				
11.	Course content: Determinants, matrices and their application. Interpolation and approximation of functions. Numerical methods for functions of one variable and systems of linear equations. Combinatorics and basics of probability.				
12.	Study methods: lectures, auditory and laboratory practice, homework, self-learning				
13.	Total hours	6 ECTS x 30 hours = 180 hours			
14.	Hours allocation per activity:	30+30+0+30+90 = 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	0 hours	
		16.2.	Individual assignments	30 hours	
		16.3.	Self-learning	90 hours	
17.	Points/Marks:				
	17.1.	Tests		90 points	
	17.2.	Projects		0 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	activity 17.3			
20.	Language of Instruction	Macedonian			
21.	Course evaluation	Student questionnaire			

22.	Textbooks				
	Instruction materials				
	22.1.	No.	Author	Title	Publisher	Year
		1.	James G.	Modern Engineering Mathematics	Pearson, Prentice Hall	2008
		2.	Trpenoski B., Celakoski N.	Elements of numerical mathematics	Prosvetno delo	1992
		3.	Lj. Stefanova	Lecture Notes in Numerical Mathematics and MATLAB manual for Numerical Analysis		2005
	Supplemental Instruction Materials				
	22.2.	No.	Author	Title	Publisher	Year
		1.	D. Stevanovic, M. Milosevic V. Baltic	Discrete Mathematics	Serbian mathematical society	2004