

Add. 3		Course program for the first, second and third level (cycle) of studies			
1.	Course title	Mathematics 2			
2.	Code	186			
3.	Study group(s)	All groups			
4.	The organizer of the study program (unit, institute, department)	Faculty of Mechanical Engineering - Skopje			
5.	Level (first, second, third)	First			
6.	Academic year / semester	First / summer	7.	ECTS credits	6
8.	Instructor	Aleksa Malcheski, Lazo Dimov, Ljubica Stefanova			
9.	Prerequisites	none			
10.	Course objectives (competences): Integral calculus and methods of integration. Functions of several real variables, differentiability and multiple integrals. Competence in mathematical modeling and solving problems in engineering.				
11.	Course content: Introduction to the concept integral of a function in one real variable and conducting basic integration techniques. Application of the integral calculus in solving problems in geometry and physics that are closely related to problems in engineering. Functions of several real variables. Limits, continuity and differentiability of functions of several real variables. Multiple integrals and applications. Introduction to differential equations and methods for solving some basic types of differential equations.				
12.	Study methods: lectures, auditory practice, homework, self-learning				
13.	Total hours	6 ECTS x 30 hours = 180 hours			
14.	Hours allocation per activity:	45+30+0+20+85 = 180 hours			
15.	Lectures/Lab	15.1.	Lectures	45 hours	
		15.2.	Student work	30 hours	
16.	Project Work/Assignments	16.1.	Project assignments	0 hours	
		16.2.	Individual assignments	20 hours	
		16.3.	Self-learning	85 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				
	22.1.	Instruction materials			
		No.	Author	Title	Publisher
	1.	B.Trpenoski, N.Celakoski, Gj. Chupona	Advanced Calculus 1 Advanced Calculus 2 Advanced Calculus 3	Prosvetno delo, Skopje	1994

		2.	L. Dimov	Mathematics 2 (lecture notes)	Faculty of Mechanical Engineering – Skopje	2002
		3.	I. James, Glyn	Modern Engineering Mathematics	Pearson, Prentice Hall	2008
		4.				
	22.2.	Supplemental Instruction Materials				
		No.	Author	Title	Publisher	Year
		1.	N. Tuneski, B. Jolevska – Tuneska	Integral Calculus	Ss. Cyril and Methodius University	2011
		2.	A.Malceski	Mathematics 2 (lecture notes)	Faculty of Mechanical Engineering – Skopje	2006