

Add. 3		Course program for the second level (second cycle - postgraduate) of studies			
1.	Course title	Selected topics in applied mathematics			
2.	Code	1M4SEE01			
3.	Study group(s)	SEE			
4.	The organizer of the study program (unit, institute, department)	"Ss. Cyril and Methodius" University in Skopje, Faculty of Mechanical Engineering - Skopje			
5.	Level (first, second, third degree)	Second			
6.	Academic year / semester	V / winter	7.	ECTS credits	6
8.	Professor(s)	Prof. dr. Aleksa Malcheski Ass. Prof. dr. Bojan Prangoski			
9.	Prerequisites for enrolling the course	None			
10.	Course objectives (competences): Introduction to selected topics in numerical analysis, optimization, linear algebra, differential equations and complex analysis.				
11.	Course content: Solving problems in numerical mathematics, optimization, differential equations and complex analysis. Application of software tools in solving problems in the topics of the course.				
12.	Study methods: lectures, lab, project assignments, individual assignments, self-study.				
13.	Total hours	6 ECTS x 30 = 180 hours			
14.	Hours allocation per activity:	30+15+40+30+65 = 180 hours			
15.	Lectures/Lab	15.1.	Lectures (15 weeks x 2)	30 hours	
		15.2.	Lab (student work)	15 hours	
16.	Project Work/Assignments	16.1.	Project assignments	40 hours	
		16.2.	Individual assignments	30 hours	
		16.3.	Self-study	65 hours	
17.	Points/Marks:				
	17.1.	Exams			40
	17.2.	Projects			50
	17.3.	Attendance			10
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 16.1			
20.	Language	English			
21.	Course evaluation	Student questionnaire			
22.	Textbooks				
	22.1	Instruction materials			
		No.	Author	Title	Publisher

		1.	R. Fletcher	Practical methods of optimization	John Willey and Sons	2006
		2.	Alhfors L.	Complex analysis	McGraw Hill	2009
		3.	S. Axler	Linear Algebra Done Right	Springer	2004
	22.2	Supplemental Instruction Materials				
		No.	Author	Title	Publisher	Year
		1.	A. Ralston, P. Rabinowitz	A First Course in Numerical Analysis	Dover Publications	2001