

Add. 3		Course program for the first, second and third level (cycle) of studies			
1.	Course title	Computer Aided Engineering			
2.	Code	171			
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)	First			
6.	Academic year / semester	winter	7.	ECTS credits	6
8.	Instructor	Prof D-r Ljuben Dudeski Prof D-r Atanas Kochov			
9.	Prerequisites	N/A			
10.	Course objectives (competences): Introducing the concept of computer-aided engineering analysis of mechanical structures, modeling and analysis of their static and dynamic behavior analysis of stress-strain.				
11.	Course content: Introduction to the basic modules and content of CAD / CAM / CAE systems. Fundamentals of the finite element method. Commercial packages with FEM analysis and their application for static and dynamic analysis and other phenomena. Fundamentals and principles of the finite element method, modern applications to solve problems in solid, structural and fluid mechanics.				
12.	Study methods: Interactive lectures, exercises auditory and / or laboratory, individual and / or team working on project assignments, self-study.				
13.	Total hours	6 ECTS x 30 hours = 180 hours			
14.	Hours allocation per activity:	30 + 30 + 30 + 30 + 60 = 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	30 hours	
		16.2.	Individual assignments	30 hours	
		16.3.	Self-study	60 hours	
17.	Points/Marks:				
	17.1.	Tests	70 points		
	17.2.	Projects	20 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	Realized activity 17.2			
20.	Language of Instruction	Macedonian			
21.	Course evaluation	Student questionnaire			
22.	Textbooks				
	22.1.	Instruction materials			
		No.	Author	Title	Publisher
	1.	Daryl Logan	A First Course in the Finite Element Method	Oxford	2005

		2.	Lj. Dudeski, A. Kochov	CAE	Intern Script Faculty of Mechanical Engineering - Skopje	2009
		3.				
	22.2.	Supplemental Instruction Materials				
		No.	Author	Title	Publisher	Year
		1.				
		2.				