

Add. 3		Course program for the first, second and third degree of studies				
1.	Course title	Computer-Aided Design				
2.	Code	177				
3.	Study group(s)	All groups				
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	1/II	7.	Number of ECTS credits	6	
8.	Instructor	Prof. Dr. Tatjana Kandikjan				
9.	Prerequisites	1. Engineering Graphics				
10.	Course objectives (competences): Study of methods for three-dimensional modeling of parts and assemblies. Learning the basics of parametric feature-based solid modeling software.					
11.	Course content: Solid modeling theory. Representation schemes for solid models. Solid modeling methods and operations. Parametric solid models. Constraint solvers. Parametric sketches. Parametric surfaces. Part modeling. Assembly modeling. Standard parts. Variant and table driven parts and assemblies. Basic assembly analysis. Semi-automatic creation of work drawings. Assembly drawings and Bill of Materials. Simulation of motion. Rendering and visualization. Capabilities of the systems for computer-aided design.					
12.	Study methods: interactive lectures, auditory practice and/or laboratory practice, self running and/or team work projects, self learning					
13.	Total hours	180 hours				
14.	Hours allocation per activity:	28+28+70+24+30=180				
15.	Lectures/Lab	15.1.	Teaching lectures	28 hours		
		15.2.	Practice, seminars, team work	28 hours		
16.	Project Work/Assignments	16.1.	Project assignments	70 hours		
		16.2.	Selfrunning assignments	24 hours		
		16.3.	Home studying	30 hours		
17.	Points/Marks:					
	17.1.	Tests				70 points
	17.2.	Projects				30 points
	17.3.	Attendance				0 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	All project assignments completed and at least 15 points from projects earned.				
20.	Language of Instruction	Macedonian				
21.	Course evaluation	Student questionnaire				
22.	Textbooks					
	22.1.	Instruction materials				
		No.	Author	Title	Publisher	Year

		1.	T. Kandikjan	Computer-Aided Design	Lecture notes and videos	2011	
		2.	T. Kandikjan, I. Mircheski	CAD Computer Lab	Laboratory Guide and Workbook	2012	
		3.					
		Supplemental Instruction Materials					
	22.2.	No.	Author	Title	Publisher	Year	
		1.	Ibrahim Zeid	Mastering CAD/CAM	McGraw-Hill Science/Engineering/Math	2004	
		2.	Tatjana Kandikjan	„Parametric Modeling of Mechanical Parts and Assemblies with Mechanical Desktop“	University “Ss. Cyril and Methodius“, Skopje	2001	
		3.					