Add. 3	**Course program for the first, second and third degree of studies**					
1.	Course title	Design of bearing structures				
2.	Code	135				
3.	Study group(s)	ПИ, ТМЛ, ТИ, ХИМВ, MJSE, ИИМ, МВ, ЕЕ, МХТ, АУС, DS				
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 degree)	First				
6.	Academic year / semester	summer	7.	Number of ECTS credits	6	
8.	Professor	Prof. Marjan Gavriloski, Ph.D Prof. Zoran Bogatinoski, Ph.D				
9.	Preconditions for enrolling the course	none				
10.	Purpose of the course program (competences): Introduction to methods and valid standards for calculation and design of bearing elements (steel beams, columns and their connection), with focus on the most important elements of a bearing structure – the joints, especially welded (butt and fillet welds).					
11.	Contents of the course program: Design and calculation of basic bearing elements (beams, columns and their connections); stress, stability and deformation control. Connection types and classification. Bolted connections (simple and high-strength pre-tensed bolts). Welded joints types (fillet and bead welds). Structural calculation, stress analysis and dimensioning of butt and fillet weld joints.					
12.	Study methods: Interactive lectures, auditory and/or laboratory practice, selfrunning and/or team work on project assignments, selfrunning assignments					
13.	Total available time period	6 ECTS x 30 hours = 180 hours				
14.	Available time assessment	30 + 30 + 0 + 30 + 90 = 180 hours				
15.	Educational activity module	15.1.	Teaching lectures	30 hours		
		15.2.	Practice, seminars, team work	30 hours		
16.	Other activity module	16.1.	Project assignments	0 hours		
		16.2.	Selfrunning assignments	30 hours		
		16.3.	Home studying	90 hours		
17.	Evaluation methods					
	17.1.	Tests	80 points			
	17.2.	Projects	10 points			
	17.3.	Activity and participation	10 points			
18.	Evaluation criteria (points and marks)	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.	Signature and final exam requirements	none				
20.	Language used for performing the teaching	Macedonian language				
21.	Method used for following the teaching quality	Questionnaire and other type of continuum evaluation				

22.	References				
	22.1.	Main references			
		No.	Author	Title	Publisher	Year

		1.	С.Стојмановски	С.Стојмановски	Машински факултет - Скопје	2006
		2.	З.Богатиноски Б.Трајаноска	Носечки метални конструкции (script)	Машински факултет - Скопје	2010
		3.				
	22.2.	Additional references				
		No.	Author	Title	Publisher	Year
		1.	Р.Македонија	Норми и стандарди	Р.Македонија	