

Add. 3		Course program for the first, second and third degree of studies				
1.	Course title	Design and calculation of a composite structures				
2.	Code	127				
3.	Study group(s)	MJSE				
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. 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 composite structures, by designing the main bearing elements and connections.					
11.	Contents of the course program: Short review of multi-storey bearing composite structures application, characteristics and solutions. Multi-storey bearing composite structures types and classification. Load determination, selecting of adequate structural material according to MKS and EC1 standards. Design of basic bearing steel elements (roofing sheet metal, beams, columns, bracing and their joints) stress, stability and deformation control. Trends in the area of composite beam to column connections design and calculation. Making and analyzing drawings of specific multi-storey bearing composite structure.					
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 + 60 + 30 + 30 = 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	60 hours		
		16.2.	Selfrunning assignments	30 hours		
		16.3.	Home studying	30 hours		
17.	Evaluation methods					
	17.1.	Tests	80 points			
	17.2.	Projects	20 points			
	17.3.	Activity and participation	0 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.	З.Богатиноски, Б.Трајаноска	Дизајн и пресметка на повеќекатни системи	МФС	2010	

			(script)		
	2.	З.Богатиноски	Нумеричко моделирање и експериментална анализа на композитни челични рамки под дејство на циклични квазистатички оптоварувања (doctoral thesis)	Универзитет „Св. Кирил и Методиј“ во Скопје, Машински факултет - Скопје	2000
	3.				
	Additional references				
22.2.	No.	Author	Title	Publisher	Year
	1.	Р.Македонија	Норми и стандарди		