

Add. 3		Course program for the first, second and third degree of studies			
1.	Course title	Operations Research 1			
2.	Code	239			
3.	Study group(s)	IEM			
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	Winter	7.	Number of ECTS credits	6
8.	Professor	Prof. Vancho Donev			
9.	Preconditions for enrolling the course	Mathematics 1 – passed			
10.	Purpose of the course program (competences): Optimization of industrial processes				
11.	Contents of the course program: Operations research and management. Linear programming. Transportation problem. Method of sequencing. Queuing theory.				
12.	Study methods: Interactive teaching, Laboratory and/or in-class exercises, individual and/or team work on projects, self-study.				
13.	Total available time period	6 ECTS x 30 hours = 180 hours			
14.	Available time assessment	30 + 30 + 30 + 50 + 40 = 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	30 hours	
		16.2.	Selfrunning assignments	50 hours	
		16.3.	Home studying	40 hours	
17.	Evaluation methods				
	17.1.	Tests			70 points
	17.2.	Projects			20 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	Realized activity 17.2			
20.	Language used for performing the teaching	Macedonian language			
21.	Method used for following the teaching quality	Surveys and other forms of continuous evaluation			
22.	References				
	22.1.	Main references			
		No.	Author	Title	Publisher
	1.	Vancho Donev	Operations research – linear programming	Sistem+	2002

		2.	Vancho Donev	Operations research – transportation problems	Sistem+	2002
		3.	Vancho Donev	Operations research – queuing theory	Sistem+	2002
		Additional references				
	22.2.	No.	Author	Title	Publisher	Year
		1.				