

Add. 3		Course program for the first, second and third level (cycle) of studies			
1.	Course title	Programming Languages			
2.	Code	262			
3.	Study group(s)	Production Informatics			
4.	The organizer of the study program (unit, institute, department)	Faculty of Mechanical Engineering - Skopje			
5.	Level (first, second, third)	First			
6.	Academic year / semester	First / summer	7.	ECTS credits	6
8.	Instructor	Emilija Celakoska			
9.	Prerequisites	/			
10.	Course objectives (competences): Introduction to the basic algorithm structures and the concept of programming language. Implementation of the standard algorithmic constructions in selected programming language.				
11.	Course content: Using the basic algorithmic structures: branches, loops, working with indexed variables, subroutines and their realization in selected programming language. Methods for error estimations in measurements and calculations.				
12.	Study methods: lectures, auditory and laboratory practice, individual assignments, self-learning				
13.	Total hours	6 ECTS x 30 hours = 180 hours			
14.	Hours allocation per activity:	30 + 30 + 0 + 30 + 60			
15.	Lectures/Lab	15.1.	Lectures	30	
		15.2.	Lab (student work)	30	
16.	Project Work/Assignments	16.1.	Project assignments	0	
		16.2.	Individual assignments	30	
		16.3.	Self-learning	90	
17.	Points/Marks:				
	17.1.	Tests (2 x 40 points)			80 points
	17.2.	Projects			10 points
	17.3.	Attendance			10 points
18.	Grading scale	Under 50		5 (five) (F)	
		50-59 points		6 (six) (E)	
		60- 69points		7 (seven) (D)	
		70 -79points		8 (eight) (C)	
		80-89points		9 (nine) (B)	
		90- 100 points		10 (ten) (A)	
19.	Prerequisites for taking the final exam	/			
20.	Language of Instruction	Macedonian			
21.	Course evaluation	Student questionnaire			

22.		Textbooks				
		Instruction materials				
		No.	Author	Title	Publisher	Year
22.1.		1.	Chakmakov D.	Computers, Algorithms and Programming	Ss. Cyril and Methodius University, Skopje	1999, 2006
		2.				
		3.				
		Supplemental Instruction Materials				
		No.	Author	Title	Publisher	Year
22.2.		1.				