

1.	Course	Graph Theory			
2.	Code	INF-S24			
3.	Study programme	Informatics			
4.	Study programme organized by	Faculty of Computer Science and Engineering			
5.	Cycle	Third - PhD			
6.	Academic year / semester winter/summer/elective	first/second	7.	ECTS credits	7.5
8.	Teacher	Prof. D-r Marija Mihova, Prof. D-r Smile Markovski			
9.	Prerequisites	None			
10.	Course programme goals (competences): To study the graph theory with an emphasis on the graphs algorithms analysis.				
11.	Course syllabus: Introduction to graphs and algorithm complexity. Trees, branching, connected trees. Planar graphs. Algebraic theory of graphs. Networks and flow across networks. Tries. Euler and Hamilton path. Graph coloring. NP complete problems on graphs.				
12.	Teaching methods: Classes supported with slide presentations, interactive teaching, lab equipment and other software packages, teamwork, case studies, invited guest lecturers, presentations of project works, e-learning materials, forums and consultations				
13.	Total fund of work hours	7,5 ECTS x 30 h = 225 h			
14.	Available hours distribution	45+30+150 = 225			
15.	Teaching activities	15.1.	Theoretical classes	45 h	
		15.2.	Practical classes (labs, exercises), seminars, team work	40 h	
16.	Other activities	16.1.	Project tasks	30 h	
		16.2.	Self study	30 h	
		16.3.	Homework	80 h	
17.	Grading				
	17.1.	Tests			50 points
	17.2.	Seminar work/ project (presentation: written and oral)			45 points
	17.3.	Active participation			5 points
18.	Grading criteria (points/grade)		to 59 points	5 (five) (F)	
			from 60 to 68 points	6 (six) (E)	
			from 69 to 76 points	7 (seven) (D)	
			from 77 to 84 points	8 (eight) (C)	
			from 85 to 92 points	9 (nine) (B)	
			from 93 to 100 points	10 (ten) (A)	

19.	Conditions for attending the final exam	Successful completion of activities 15.1 and 15.2
20.	Language	Macedonian or English
21.	Quality assessment	Internal evaluation and student pools

22.	Literature					
	22.1.	Compulsory				
		No.	Author	Title	Publisher	Year
		1.	J. L. Gross, J. Yellen	Handbook of graph theory CRC	Press LLC	2004
		2.	A. M. Gibbons	Algorithmic graph theory	press Syndicate of the University of Cambridge	1999
	22.2.	Additional				
		No.	Author	Title	Publisher	Year
		1.				
		2.				