

1.	Course	<i>Topics in Software Development</i>		
2.	Code	KNI_E21		
3.	Study programme	Computer Science and Engineering PhD study programme		
4.	Study programme organized by	FCSE		
5.	Cycle	Third – PhD		
6.	Academic year / semester winter/summer/elective	7. ECTS credits 7,5		
8.	Teacher	Prof. d-r Ivan Chorbev		
9.	Prerequisites	None		
10.	Course programme goals (competences): The students will understand and be able to apply their knowledge on topics connected to state-of-the-art topics on software application development, modern software development technologies.			
11.	Course syllabus: The course topics will include programming tools, programming paradigms, agile programming, extreme programmings, aspect-oriented programming, functional decomposition, post-objective programming, rule based programming, portable programming, iterative programming, Behavior Driven Development (BDD), Lean software development, Feature Driven Development, Joint Application Development (JAD), Capability Maturity Model Integration, Cloud computing, software engineering for web applications.			
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 EKTC 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	30 h
16.	Other activities	16.1.	Project tasks	50 h
		16.2.	Self study	50 h
		16.3.	Homework	50 h
17.	Grading			
	17.1.	Tests	40 points	
	17.2.	Seminar work/ project (presentation: written and oral)	50 points	
	17.3.	Active participation	10 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.	Kent Beck, Cynthia Andres	Extreme Programming Explained: Embrace Change, Second Edition	Addison Wesley Professional	2004
		2.	Robert C. Martin	Clean Code, A Handbook of Agile Software Craftsmanship	Pearson Education, Inc.	
	3.	Steve McConnell	Code Complete, Second Edition	Microsoft Press	2004	
	22.2.	Additional				
		No.	Author	Title	Publisher	Year
		1.	Roger S. Pressman	Software engineering: a practitioner's approach, 5th ed.	McGraw-Hill series in computer science	
		2.	Eve Andersson, Philip Greenspun, and Andrew Grumet	Software Engineering for Internet Applications	The MIT Press, Cambridge, Massachusetts	
3.						