

1.	Course Title	Mobile Applications		
2.	Code	F18L3S127		
3.	Study program	Software engineering and information systems		
4.	Study Program Organizer	Faculty of Computer Science and Engineering		
5.	Degree (first, second, third cycle)	first cycle		
6.	Academic year / semester 4 / summer / optional	7. ECTS credits 6		
8.	Teacher	full professor Ljupcho Antovski, full professor Vladimir Trajkovikj, assistant professor Petre Lameski		
9.	Course enrollment prerequisites	Алгоритми и податочни структури		
10.	Course program goals (competencies): After finishing this course the student is expected to have broadened knowledge in application of technologies and tools for mobile application design and development			
11.	Course program content: Modern approaches to mobile application development. Overview of iOS as a mobile application development platform. Application structure. Planning and development of commercial mobile application. User interfaces flown with operating system. Rules for development and planning of user interface. Resource optimization in mobile applications. Data structures and memory usage in mobile devices. Mobile device databases and integration with external services. Artificial intelligence and machine vision in mobile applications. Mobile applications in health, banking and electronic commerce. Examples of mobile applications from the industry. Mobile applications publishing (best practices).			
12.	Learning methods: Lectures using presentations, interactive lectures, exercises (using equipment and software packages), teamwork, case studies, invited guest lecturers, independent preparation and defense of a project assignment and seminar work.			
13.	Total available time	6 ECTS x 30 hours = 180 hours		
14.	Distribution of the available time	30 + 45 + 15 + 15 + 75 = 180 hours		
15.	Teaching activity forms	15.1.	Lectures – theoretical teaching	30 hours
		15.2.	Exercises (laboratory, auditory), seminar papers, teamwork	45 hours

16.	Other activity forms		16.1.	Project Tasks	15 hours	
			16.2.	Independent Learning Tasks	15 hours	
			16.3.	Home learning	75 hours	
17.	Assessment methodology					
	17.1.	Tests			10 points	
	17.2.	Seminar paper/project (presentation: written and oral)			10 points	
	17.3.	Activity and learning			10 points	
	17.4.	Final exam			70 points	
18.	Assessment criteria (points/grade)		up to 50 points		5 (five) (F)	
			51 to 60 points		6 (six) (E)	
			61 to 70 points		7 (seven) (D)	
			71 to 80 points		8 (eight) (C)	
			81 to 90 points		9 (nine) (B)	
			91 to 100 points		10 (ten) (A)	
19.	Course completion and final exam requirements		Realized activities 15.1 and 15.2			
20.	Teaching Language		Macedonian and English			
21.	Teaching quality evaluation method		Internal evaluation mechanisms and questionnaires			
22.	Course Material					
	22.1.	Mandatory course material				
		No.	Author	Title	Publisher	Year
		1	Matt Neuburg	iOS 11 Programming Fundamentals with Swift: Swift, Xcode, and Cocoa Basics	O'Reilly	2017
		2	Donny Wals	Mastering iOS 11 Programming - Second Edition: Build professional-grade iOS applications with Swift 4 and Xcode 9	Packt	2017
	22.2.	Additional course material				
		No.	Author	Title	Publisher	Year

