1.	Course Title	Client side Inernet programming		
2.	Code	F18L2W109		
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 2 / winter / mandatory	7. ECTS credits 6		
8.	Teacher	full professor Suzana Loshkovska, assistant professor Ivan Kitanovski		
9.	Course enrollment prerequisites	Објектно-ориентирано програмирање		
10.	Course program goals (competencies): The purpose of the course is to enable students to familiarize themselves with the Internet client side programming. In this regard, students will be introduced to some of the client side programming languages and technologies. Upon completion of the course, the student is expected to be able to develop interactive web pages using programming languages for client side programming.			
11.	Course program content: Introduction, basic concepts of client side programming, rules for writing client side programs. Web application architecture. Introduction to scripting. JavaScript - variables, control structures, functions, fields and objects. Document Object Model. JavaScript - handling errors and exceptions, events. JQuery - syntax, selectors, methods, adding interactivity to web sites. JSON - syntax and application for data exchange. Ajax - connection to the server side and data exchange.			
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	0 points
	17.2.	Seminar paper/project (presentation: written and oral)	20 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	Deitel, Paul J.	Internet and world wide web : how to program	Pearson Education, Inc.	2012
2	Robin Nixon	Learning PHP, MySQL & JavaScript	O'Reilly Media, Inc.,	2015
3	Nicholas C. Zakas	Professional JavaScript for Web Developers	Wrox	2012

22.2. Additional course material

No.	Author	Title	Publisher	Year