1.	Course title	Interactive applications		
2.	Course code			
3.	Study program	Computer Science and Engineering, Computer Networks Technologies, Applied e-Technologies, Education Informatics, Informatics and Computer Engineering, Professional Informatics Studies, Academic Informatics Studies, Professional Information Technologies Studies		
4.	Unit offering the course	**FCSE**		
5.	Undergraduate/postgraduate/PhD	**Undergraduate**		
6.	Year/semester	7. ECTS: **6**		
8.	Teacher(s)	prof. dr. Suzana Loshkovska, assoc. prof. dr. Dejan Gjorgjevikj, assist. prof. dr. Nevena Ackovska, assist. prof. dr. Anastas Misev, assist. prof. dr. Ivica Dimitrovski, assist. prof. dr. Gjorgji Madzarov		
9.	Course prerequisites	Object-oriented programming		
10.	Goals (competences): Basic elements of user interfaces. Development of user interfaces. Understanding the basic types of user interaction. Upon completion of the course the student is expected to demonstrate knowledge of the basic types of user interaction and the principles for their design, and can independently develop interactive applications using programming tools and following the principles learned.			
11.	Course content: Basic principles for building user interfaces; Types of user interfaces; Graphical user interfaces; Web-based user interfaces. Design of windows, menus and commands. Planning of the screen layout, navigation and flow. Components of user screens, messages, text. Colours, icons and sounds. Devices for user interaction. Internationalization and localization.			
12.	Teaching methods: Lectures supported by presentations with slides, interactive lectures, exercises (use of equipment and software packages), real life examples, invited guest lecturers, preparation and defence of a project work and seminar thesis, learning in an e-environment (forums, consultations).			
13.	Total available time	6 ECTS x 30 hours = 180 hours		
14.	Distribution of the available time	30 + 15 + 30 + 40 + 30 + 35 = 180 hours		
15.	Teaching activities	15.1.	Lectures	30 hours
		15.2.	Training (labs, problem solving), seminar and team work	45 hours
16.	Other activities	16.1.	Project work	40 hours

	16.2.	Self study	30 hours
	16.3.	Home work	35 hours

17.	Grading		
	17.1.	Tests	80 points
	17.2.	Seminar work/project (written or oral presentation)	15 points
	17.3.	Active participation	5 points

18.	Grading criteria	to 50 points	5 (five) (F)
		from 51 to 60 points	6 (six) (E)
		from 61 to 70 points	7 (seven) (D)
		from 71 to 80 points	8 (eight) (C)
		from 81 to 90 points	9 (nine) (B)
		from 91 to 100 points	10 (ten) (A)

19.	Final exam prerequisites	Completed activities 15 and 16
20.	Course language	Macedonian and English
21.	Quality assurance methods	Internal evaluation mechanisms supported by student polls

22. Literature

Compulsory

No.	Authors	Title	Publisher	Year
1.	Jenifer Tidwell	Designing Interfaces,	(2nd edition), O'Reilly Media.	2010
2.	Bill Scott, Theresa Neil	Designing Web: Interfaces Principles and Patterns for Rich Interactions	O'Reilly Media	2009
3.	Dix, Finley, Abowd,	Human Computer Interaction	Prentice Hall	2004

Mandatory

No.	Authors	Title	Publisher	Year
1.	Rogers, I., Sharp, Y., Preece, J.	Interaction Design: Beyond Human Computer Interaction	John Willey and Sons Ltd.	2011
2.				
3.				