

1.	Course title	Human-computer interaction		
2.	Course code			
3.	Study program	FCSE		
4.	Unit offering the course	FCSE		
5.	Undergraduate/postgraduate/PhD	Undergraduate		
6.	Year/semester	7. ECTS: 6		
8.	Teacher(s)	prof. dr. Marjan Gushev, Prof. dr. Suzana Loshkovska, assoc. prof. Dejan Gjorgjevikj, assist. prof. dr. Nevena Ackovska, assist. dr. Sonja Gievska, assist. dr. Gjorgji Madjarov		
9.	Course prerequisites	Object-oriented programming		
10.	Goals (competences): The aim of the course is students to understand the need of designing effective communication between users and computers. Upon completion of the course the student is expected to demonstrate knowledge of all aspects of user interfaces, to know how to model and implement user interfaces for applications according to user requirements and available equipment and to know how to test and evaluate interfaces of existing systems.			
11.	Course content: Introduction. Definition of user interfaces. Terminology. History. Participants in computer-user interaction. User. Input, output devices. Interactions. Patterns of interactions. Interaction styles. User-interfaces design process. Rules, principles and standards for designing usable user interfaces. Evaluation of user interfaces. Direct manipulation. Menus and forms. Commands and natural languages processing. Interaction and feedback. Help styles, guidelines, design and implementation of help. Multiple windows systems. CSCW. Implementation and programming of multimodal interaction. Information search. Web. Social impact.			
12.	Teaching methods: lectures with presentations, interactive lectures, lab classes, exercises, team work, invited guest lectures, student projects and home works.			
13.	Total available time	6 ECTS X 30h = 180h		
14.	Distribution of the available time	30+15+30+40+30+35=180h		
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		70 points
	17.2.	Seminar work/project (written or oral presentation)		25 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	Realised activity 15, 16				
20.	Course language	Macedonian and English				
21.	Quality assurance methods	Internal evaluation and surveys				
22.	Literature					
	22.1.	Compulsory				
		No.	Authors	Title	Publisher	Year
		1.	Dix A., Finley J., Abowd G., Beale P.	Human Computer Interaction, 3rd edition,	Prentice Hall,	2004
		2.	Shneiderman B., Plaisant C.	Designing the User Interface, 5th edition,	Addison Wesley,	2010
		3.				
	22.2.	Mandatory				
		No.	Authors	Title	Publisher	Year
		1.				
		2.				
3.						