1.	Course title	**Intelligent User Interfaces**
2.	Course code	IIS-I-03
3.	Study program	**Master degree in Computer Science and Engineering** **Study program: Intelligent Information Systems**
4.	Unit offering the course	**FCSE**
5.	Undergraduate/master/PhD	**Master**
6.	Year/semester 1/winter/eective	7. ECTS: **6**
8.	Teacher(s)	dr. Sonja Gievska
9.	Course prerequisites	None
10.	Goals (competences): The aim of the course is to provide the students with the knowledge for the newest methodologies and technologies for design and development of intelligent user interfaces. A special importance will be given to the scientific design approach based on relevant theoretical and empirical research following the state-of-the-art trends in intelligent technologies, cognitive science and paradigms of interactive design as they pertain to the user interface design. After completion of the course the student is expected: - to have a knowledge of the theoretical and empirical research, which are the foundation for the new approaches in intelligent user interface design - to know the techniques and methodologies for designing and implementation of intelligent interfaces - to demonstrate a capacity and skills to select the methods for analysis, design and implementation of a user interface that are most suitable for the domain and problem of interest - to demonstrate the skills to apply the advanced technologies and the state-of-the-art paradigms in intelligent interface design for a selected application domain, scenario, or context of use - to demonstrate a capacity to design a suitable evaluation procedure to validate a user interface at different stages of its design	
11.	Course content: A selected list of topics follows: - Design of user-centred intelligent interaction - Methodologies for user interface design: User-Activity-Context-Technology, Scenario-based design, User Experience UX design - Mobile, pervasive intelligent interfaces. Smart spaces and environments - Affective interaction - Captology as a basis for designing persuasive interfaces - Modelling users and groups - Modelling situations, activities and behaviour in various contexts of use - Visualization and multimodal interaction - Cognitive modelling – attention, task analysis, distributed cognition - Agent-based approach in intelligent user interface design - Application domains and case studies - Evaluation of intelligent interfaces: Experimental design	
12.	Teaching methods:	

	Lectures supported by slide presentations, interactive lectures, trainings (using lab equipment and software packages), team work, case studies, invited guests and lectures, individual practical assignments presentations, seminar paper, e-learning (forums, consultations).			
13.	Total available time		6 ECTS x 30 hours = 180 hours	
14.	Distribution of the available time		30 + 15 + 135 = 180 hours	
15.	Teaching activities	15.1.	Lectures	30 hours
		15.2.	Training (labs, problem solving), seminar and team work	15 hours
16.	Other activities	16.1.	Project work	60 hours
		16.2.	Self study	25 hours
		16.3.	Home work	50 hours
17.	Grading			
	17.1.	Tests		15 points
	17.2.	Seminar work/project (written or oral presentation)		75 points
	17.3.	Active participation		10 points
18.	Grading criteria		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.	Final exam prerequisites		Successfully completed activities 15.1 and 15.2	
20.	Course language		Macedonian and English	
21.	Quality assurance methods		Internal evaluation and student questionnaires	

22. Literature

22.1. Compulsory

No.	Authors	Title	Publisher	Year
1.	J. Jacko & A. Sears (Eds.)	The Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies and Emerging Applications	Lawrence Erlbaum Associates	2009
2.	D. Benyon, P. Turner, and S. Turner	Designing Interactive Systems. People, Activities, Contexts, Technologies, Third Edition	Addison Wesley	2005
3.	Michael Wooldridge	An Introduction to Multiagent Systems (2nd Edition)	John Wiley & Sons Ltd	2009

22.2. Additional

		No.	Authors	Title	Publisher	Year
		1.	Selected authors	A selected list of scientific papers from relevant conferences and journals		
		2.				
		3.				