1.	Course	*Advanced Distance Learning Systems*
2.	Code	KNI_E14
3.	Study programme	Computer Science and Engineering PhD study programme
4.	Study programme organized by	FCSE
5.	Cycle	Third – PhD
6.	Academic year / semester winter/summer/elective	7. ECTS credits 7,5
8.	Teacher	Prof. d-r Vladimir Trajkovikj, Prof. d-r Danco Davcev
9.	Prerequisites	None

10.	Course programme goals (competences): The students will have the knowledge and skills to use the techniques for analysis, design and implementation of distance learning systems.
11.	Course syllabus: Needs and viability for distance learning systems. Collaborative systems for distance learning. Incentive environments. Solution development principles that support the process of cooperative and self learning. Distance learning system components. Internet as the platform for distance learning systems support. Distance learning course development. Using multimedia information in order to present the learning material. Digital libraries. Multimedia presentation of digital library contents. Digital library data search principles. Results visualization. Recommendation principles. Data interaction and digital libraries user interfaces. Methodological approaches in the learning process. Active learning. Collaboration learning. Interactivity and testing. Communication types for distance learning systems. Combining different communication types in order to provide active learning. Synchronous and asynchronous communication. Videoconferencing systems supporting distance learning. Student services and distance learning support systems. Building a learning environment based on project assignments. Virtual laboratories. Learning by using the mobile cloud. Wireless and mobile systems for distance learning. Knowledge portions paradigm. Mobile systems interaction for distance learning support. Distance learning system evaluation. Results evaluation. Learning efficacy evaluation. User interface evaluation.
12.	Teaching methods: Classes supported with slide presentations, interactive teaching, lab equipment and other software packages, teamwork, case studies, invited guest lecturers, presentations of project works, e-learning materials, forums and consultations.
13.	Total fund of work hours	7,5 EKTC x 30 h = 225 h

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14.	Available hours distribution	45+30+150 = 225

15.	Teaching activities	15.1.	Theoretical classes	45 h
		15.2.	Practical classes (labs, exercises), seminars, team work	30 h
16.	Other activities	16.1.	Project tasks	50 h
		16.2.	Self study	50 h

			16.3.	Homework	50 h		

17.	Grading			
	17.1.	Tests		40 points
	17.2.	Seminar work/ project (presentation: written and oral)		50 points
	17.3.	Active participation		10 points

18.	Grading criteria (points/grade)	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.	Conditions for attending the final exam	Successful completion of activities 15.1 and 15.2
20.	Language	Macedonian or English
21.	Quality assessment	Internal evaluation and student pools

22.	Literature					
	22.1.	Compulsory				
		No.	Author	Title	Publisher	Year
		1.	Keegen, D.	Foundations of Distance Education	New York, Routledge	1996
		2.	Hiltz, S.R. et al	The Virtual Classroom: Learning Without Limits Via Computer Networks	New Jersey	1994
		3.	Belanger, F., Jordan, D.H.	Evaluation and Implementation of Distance learning: Technologies, Tools and Techniques	Idea Group Publishing	2000
	22.2.	Additional				
		No.	Author	Title	Publisher	Year
		1.	Dr. Grifoni, ed.	Multimodal Human Computer Interaction and Pervasive Services	Information Science Reference (USA)	2009
		2.	R.Rodger	Beginning Mobile Application Development in the Cloud	Wiley	2012
		3.				