1.	Course		*Speech processing*	
2.	Code		KNI_E25	
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 Dragan Mihajlov	
9.	Prerequisites		None	
10.	Course programme goals (competences): The course offers advanced knowledge and research on digital speech processing.			
11.	Course syllabus: Digital signal processing. Processing natural languages. Speech processing. Speech processing methods and tools. Perceptual speech aspects enhancement algorithms. Speech recognition. Speaker recognition. Speech synthesis, diphone, prosody, speech modification. Human machine communication.			
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	
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.	Lawrence R. Rabiner, Ronald W. Schafer	Introduction to Digital Speech Processing	Now publishers	2007
		2.	Benesty, Jacob; Sondhi, M. M.; Huang, Yiteng	Handbook of Speech Processing XXXVI	Springer	2008
		3.	Daniel Jurafsky, James H. Martin	Speech and Language Processing, 2nd Edition	Prentice Hall	2008
	22.2.	Additional				
		No.	Author	Title	Publisher	Year
		1.				
		2.				
		3.				