1.	Course title	**Digital Electronics**		
2.	Course code	CSES407		
3.	Study program	IKI, KNI		
4.	Unit offering the course	**FCSE**		
5.	Undergraduate/postgraduate/PhD	**Undergraduate**		
6.	Year/semester 2 / summer / elective	7. ECTS: **6**		
8.	Teacher(s)	Asst. Prof. Dejan Spasov, Asst. Prof. Lasko Basnarkov		
9.	Course prerequisites	None		
10.	Goals (competences): Students will be introduced to the basic types of electronic devices, their behavior and the models. Also students will acquire basic techniques for analysis and design of logical circuits and amplifiers.			
11.	Course content: Basic circuit laws. Digital abstraction. Digital logical circuits. MOSFET. MOSFET amplifier. Capacitor, inductor and first order circuits. Response. State and digital memory. Second order systems. Impedance models. Operational amplifiers and applications.			
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	Total available time		
14.	Distribution of the available time	30+45+30+30+45 = 180 h		
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	30 hours
		16.2.	Self study	30 hours
		16.3.	Home work	45 hours
17.	Grading			
	17.1.	Mid-term exams (2)	70 points	
	17.2.	Project	10 points	
	17.3.	Active participation	20 points	
18.	Grading criteria	up 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			Successful completion of activities 15.1 and 15.2		
20.	Course language			Macedonian and English		
21.	Quality assurance methods			Internal evaluation mechanisms supported by student polls		
22.	Literature					
	22.1.	Compulsory				
		No.	Authors	Title	Publisher	Year
		1.	A. Agarwal and J. H. Lang	Foundations of Analog and Digital Electronic Circuits	Morgan Kaufmann	2005
		2.	R. Jaeger, T. Blalock	Microelectronic Circuit Design	McGraw-Hill	2010
		3.				
	22.2.	Additional				
		No.	Authors	Title	Publisher	Year
		1.	W. Kleitz	Digital Electronics: A Practical Approach	Prentice Hall	2004
		2.	C. Alexander, M. Sadiku	Fundamentals of Electric Circuits	McGraw-Hill	2008
		3.				