COURSE DESCRIPTION CARD

			F	aculty	of Ele	ectrical	Engin	eering	
Field of study								Degree level and programme type	bachelor's degree, full time programme
Specialization/ diploma path	-						Study profile	-	
Course name		Electronics 2						Course code	IS-FEE-10030S
		1		ı	ı	ı	ı	Course type	elective
Forms and	L	С	LC	Р	SW	FW	S	Semester	summer
number of hours of tuition	15	15	30					No. of ECTS credits	6
Entry requirements	Electronics 1								
Course objectives	The objective of this course is to provide students with deep understanding of advanced analogue circuits. The laboratory component of the course provides students with an opportunity to design, simulate and test various circuits discussed in class.								
Course content	Frequency response of single transistor amplifiers. Linear applications of operational amplifiers. Nonlinear applications of operational amplifiers. Voltage comparators. Current sources. Active filters. Output stages and power amplifiers. Voltage regulators. RC oscillators. Optoelectronic devices and circuits. Several lab and homework assignments in this class will require the use of PSpice software								
Teaching methods	lectur	e, clas	s, laboı	atory c	lass, c	ompute	er simul	ations	
Assessment	lectur	e: writt	en exa	m; clas	s: two	tests; la	aborato	ry class: verification	of preparation for
method	class	es, eva	luation	of repo	orts				
Symbol of learning outcome	Learning outcomes learning outcom							Reference to the learning outcomes for the field of study	
L01	describes the basic principles of operation of the electronic circuits;								
LO2		applies knowledge of mathematics and engineering to analysis and design of analog circuits;							
LO3	uses	PSPIC	E to an	alysis	and de	sign of	electro	onic circuits;	
LO4		repare cation r		nduct	experir	ments ι	using d	atasheets and	
LO5	analy	zes an	d interp	rets m	easure	ment d	ata and	d prepares reports	
Symbol of learning outcome		Me	thods	of asse	essing	the lea	rning	outcomes	Type of tuition during which the outcome is assessed
LO1				wr	itten ex	am, te	sts		L, LC

Student wor	*Kload – activities that require direct teacher participation Student workload – practical activities 1. Sedra A.S., Smith K. C.: Microelectronic Circuits. Oxford U 2. Sinclair I., Dunton J.: Practical Electronics Handbook, Else	•	·	
Student wor	kload – activities that require direct teacher participation	65		
			credits	
	Quantitative indicators	HOURS	No. of ECTS	
	TOTAL:	150		
Calculation -	preparation for and participation in exams/tests	25		
	classes/laboratory classes	5		
	working on projects, reports participation in student-teacher sessions related to the	25		
	preparation for laboratory classes	20 25		
	participation in laboratory classes	30		
	preparation for classes	15		
	participation in classes	15		
	lecture attendance	15		
	Student workload (in hours) No. 0			
LO5	evaluation of reports	LC		
LO4	tests, evaluation of class work, evaluation of reports		С	
LO3	verification of preparation for classes, evaluation of reports		С	
LO2	written exam, tests		, LC	

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work, S – seminar