ELECTRONIC CIRCUIT COMPONENTS											
1	Course Title:	ELECTRONIC CIRCUIT COMPONENTS									
2	Course Code:	EEM230	2								
3	Type of Course:	Compuls	sory								
4	Level of Course:	First Cyc	le								
5	Year of Study:	2									
6	Semester:	4									
7	ECTS Credits Allocated:	6.00									
8	Theoretical (hour/week):	3.00									
9	Practice (hour/week):	0.00									
10	Laboratory (hour/week):	0									
11	Prerequisites:	-									
12	Language:	Turkish									
13	Mode of Delivery:	Face to f	face								
14	Course Coordinator:	Dr. Ögr.	Üyesi UMUT AYDEMİR								
15	Course Lecturers:	Öğr. Gör	. Dr. İsmail Tekin								
16	Contact information of the Course Coordinator:	E-posta: Tel: (224 Adres: E	eldar@uludag.edu.tr ) 294 2015 Iektronik Mühendisliği Bölümü No:434								
17	Website:										
18	Objective of the Course:	Basic electronic circuit elements in the structure, operation princip characteristics and parameters, its behavior under stress, models and computer simulations provide the basic information needed about the usage examples.									
19	Contribution of the Course to Professional Development:										
20	Learning Outcomes:										
		1	Learns the structure of electronic circuit elements								
		2	Learn the working principles of electronic circuit elements								
		3	Learn the characteristics and parameters of the electronic circuit components								
		4	Learns simulation models of electronic circuit elements								
		5	Learns to use examples of electronic circuit elements								
		6									
		7									
		8									
		9									
04	Course Content:	10									
21	Course Content:										
Week	Theoretical										
1	Types of electronic circuit devices re	esistors									
	resistor types, structures, operating principles, characteristics and param application examples.	eters,									
2	Capacitors, coils and transformers, t structure, operation principle, charac and parameters, application example	ypes, eteristics es.									

3	The	The theory of the semiconductor, semiconductor diodes, structure, operation																	
	principle, characteristics and parameters, and							d											
	appl	surrace-contact-point-contact diodes, diode applications.																	
4	Tun	unnel diodes, varicaps, structure, operation rinciple, characteristics and parameters.																	
5	Diac prine	s, th ciple,	yristor chara	rs, stru acteris	icture tics a	, opera nd para	ition amete	rs.											
6	Tria chai	cs, st actei	tructur ristics	e, ope and p	eratior aram	n princi eters.	ple,												
7	Bipolar transistors, structure, operation principle, characteristics and parameters																		
8	Midterm + review session																		
9	Con	Connection types of bipolar transistors.																	
10	FET char	ETs, structure, operation principle, haracteristics and parameters.																	
11	MOS char	SFET acter	s, stru	ucture and p	, oper aram	ation p eters.	orincip	le,											
12	IGB <sup>:</sup> chai	IGBTs, structure, operation principle, characteristics and parameters.																	
13	Ligh opei para	Light emitting diodes (LEDs), structure, operation principle, characteristics and parameters																	
14	Pho	Photodetectors, optocouplers, switching																	
Activit	tes		<u>, siru</u>	sture,	opera		ncipie	•	1	Number Dr				Duration (hour)			Total Work		
																	nour)		
Theore	heoretical									2 124 Leblebici, Seç Yay B. D@ğıtım, 2001. 42.00									
Practic	racticals/Labs									0 0.00							0.00		
Self stu	Self study and preperation									5 R4 Boylestad and L. Nastreelsky, Electronize Devices and									
Homew	Homeworks								(	0 0.00						0.00			
Pr2ject	<sup>2</sup> r <b>2j</b> gctAssesment									0			0.00	0.00					
Field S	Studies								(	0				0.00			0.00		
Midterr	n exams R									1 16.00						16.00			
Others									(	)			0.00			0.00			
Final E	xams 0								0.0	20.00					20.00				
Total V	Work Load															120.00			
Total w	work load/ 30 hr															4 00			
ECTS	ECTS Credit of the Course														6.00				
Succes	Contribution of Term (Year) Learning Activities to Success Grade							40	.00			•							
Contrib	Contribution of Final Exam to Success Grade								60	60.00									
Total	fotal								10	100.00									
Measurement and Evaluation Techniques Used in the Course																			
24	EC	TS /	WO	RK L	OAD	TAB	LE												
25	25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS																		
		PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1	PQ11	PQ12	PQ1	PQ14	PQ15	PQ16		
ÖK1		0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

ÖK2	0	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	4	4	2	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib 1 very low ution Level:			2 low			3 Medium			4 High			5 Very High				