

BASIC ELECTRIC AND ELECTRONICS

1	Course Title:	BASIC ELECTRIC AND ELECTRONICS
2	Course Code:	EHAZ102
3	Type of Course:	Compulsory
4	Level of Course:	Short Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	2
11	Prerequisites:	none
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Öğr. Gör. CAFER KAPLAN
15	Course Lecturers:	Meslek Yüksekokulları Yönetim Kurullarının görevlendirdiği öğretim elemanları.
16	Contact information of the Course Coordinator:	Öğr. Gör. Cafer KAPLAN Bursa Uludağ Üniversitesi Teknik Bilimler MYO Hibrid ve Elektrikli Taşıtlar Prog. Görükle / Bursa
17	Website:	
18	Objective of the Course:	The aim of this course is to provide basic knowledge and skills about electronic technology. To teach basic concepts and circuit structures of analog electronic circuits and to introduce semiconductor technologies.
19	Contribution of the Course to Professional Development:	Students who successfully complete this course; • Will be able to master the working principles of basic circuit elements. • Will be able to make calculations with circuit analysis methods • Will make an introduction to semiconductor diode technology.
20	Learning Outcomes:	
	1	Will be able to master the working principles of basic circuit elements.
	2	Will be able to make calculations with circuit analysis methods
	3	Will make an introduction to semiconductor diode technology.
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21	Course Content:	
	Course Content:	

Week	Theoretical	Practice		
1	International unit systems SI unit system	control applications		
2	Basic elements used in electrical systems	test and control applications		
3	Electric current, potential difference, resistance	test and control applications		
4	Electrical energy sources, Conductors, insulators and semiconductors Conductive, insulating and semiconductor materials	test and control applications		
5	Concepts such as current, voltage, energy, power and electric charge Electric charge, energy, power	test and control applications		
6	Ohm's Law, Resistor element and its application areas	test and control applications		
7	Resistance element, ohm law Kirchoff's law of currents and voltages.	test and control applications		
8	Midterm Exam			
9	Analysis of DC circuits Kirchoff's laws and applications	test and control applications		
10	AC signals, alternating current, period, frequency, amplitude, RMS concepts	test and control applications		
Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical		14	2.00	28.00
Practicals/Labs		14	2.00	28.00
Self study		4	14.00	56.00
Homeworks		0	0.00	0.00
Projects		0	0.00	0.00
Field Studies		0	0.00	0.00
Midterm exams		1	30.00	30.00
Others		0	0.00	0.00
Final Exams		1	4.00	4.00
Total Work Load				146.00
Total work load/ 30 hr		Paul Horowitz, Winfield Hill		4.87
ECTS Credit of the Course				5.00
TERM LEARNING ACTIVITIES		NUMBER	WEIGHT	
Midterm Exam		1	40.00	
Quiz		0	0.00	
Home work-project		0	0.00	
Final Exam		1	60.00	
Total		2	100.00	
Contribution of Term (Year) Learning Activities to Success Grade		40.00		
Contribution of Final Exam to Success Grade		60.00		
Total		100.00		

Measurement and Evaluation Techniques Used in the Course	Measurement and evaluation is carried out according to the principles of Bursa uludag University Associate and Undergraduate Education Regulation.
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24	ECTS / WORK LOAD TABLE
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25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
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	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	2	1	1	3	2	1	1	2	1	0	0	0	0	0	0	0
ÖK2	3	1	1	2	3	3	4	2	3	0	0	0	0	0	0	0
ÖK3	1	2	1	3	3	3	4	4	1	0	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications																
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Contribution Level:	1 very low	2 low		3 Medium		4 High		5 Very High	
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