BASIC ELECTRIC

1	Course Title:	BASIC ELECTRIC
2	Course Code:	MKNS223
3	Type of Course:	Optional
4	Level of Course:	Short Cycle
5	Year of Study:	2
6	Semester:	3
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Öğr.Gör. BÜLGAN TOMAÇ
15	Course Lecturers:	Meslek Yüksekokulları Yönetim Kurullarının görevlendirdiği öğretim elemanları.
16	Contact information of the Course Coordinator:	btomac@uludag.edu.tr
17	Website:	
18	Objective of the Course:	With this course, students will be given basic competencies related to electrical circuits and electrical motor connections.
19	Contribution of the Course to Professional Development:	Gains knowledge about electrical connections related to their fields.
20	Learning Outcomes:	

	1	Understanding basic electrical concepts
	2	Understanding the structure of simple electrical circuits and constructing simple electrical circuits
	3	Understanding the working principle of electric motor
	4	Knowing the types of electric motors, making their connections
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21	Course Content:

Course Content:

Week	Theoretical	Practice
1	Introduction to the course	
2	1. The structure of the atom (electron flow, matter, element) 2. Static electricity, dynamic electricity	

3	3. Types of electric current Direct (DC) current, Alternating (AC) current 4. Conductor, insulator, semiconductor materials.	
4	5. Methods of obtaining electric current 6. Effects of electric current (Chemical effect, magnetic field effect, heat and light effect)	
5	Electrical measurement units 1. Volt 2 Amps 3. Ohms 4. Watts	
6	Ohm's law	
7	Ohm's law	
8	electrical measuring instruments 1. Voltmeter 2. Ammeter 3. Ohmmeter	
9	electrical measuring instruments 4. Avometer 5. Multimeter 6. In-line ammeter	
10	Electric circuits 1. Electrical circuit elements 2. Series circuit 3. Parallel circuit	
11	4. Voltage drop in electrical circuits	
12	Magnetism and its fundamentals 1. Definition and properties of magnetic field	
13	3. Electromagnets.	
14	1. Definition and properties of magnetic field 2. Magnetic effect of electric field	
15	Textbooks, References and/or Other	Lecture Notes of the Instructor

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preparation	0	0.00	0.00
Homeworks	1	60.00	60.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	0	0.00	0.00
Total Work Load			88.00
Total work load/ 30 hr			2.93
ECTS Credit of the Course			3.00

23	Assesment

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	0	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 priciples of Bursa uludag University Associate and Undergraduate Education Regulation.

24 ECTS / WORK LOAD TABLE

25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS

	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	4	5	4	0	0	0	0	5	1	3	2	5	0	0	0	0
ÖK2	4	5	4	0	0	0	0	5	1	3	2	5	0	0	0	0
ÖK3	4	5	4	0	0	0	0	5	1	3	2	5	0	0	0	0
ÖK4	4	5	4	0	0	0	0	5	5	3	2	5	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**