FUNDAMENTALS OF ELECTRICITY AND ELECTRONICS

1	Course Title:	FUNDAMENTALS OF ELECTRICITY AND ELECTRONICS
2	Course Code:	BSM2806
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	4
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	1.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. ALİ VARDAR
15	Course Lecturers:	Doç. Dr. ONUR TAŞKIN
16	Contact information of the Course Coordinator:	Prof. Dr. Ali VARDAR e-posta: dravardar@uludag.edu.tr Telefon: 0 224 2941605 Adres: Bursa Uludağ Üniversitesi, Ziraat Fakültesi, Biyosistem Mühendisliği Bölümü, Görükle Kampüsü, 16059, Nilüfer/BURSA
17	Website:	
18	Objective of the Course:	Used today in the field of agriculture and animal husbandry technologies in electricity, electronics and automation applications are given frequently. The aim of the course in this context, the basic information about electricity and electronics to teach basic skills to teach, and in this regard.
19	Contribution of the Course to Professional Development:	The course contributes to the student's understanding of the infrastructure of agricultural electricity, electronics and automation.
20	Learning Outcomes:	
	1	Understand the concepts and importance of electricity and electronics
	2	Recognize basic electrical and electronic circuit elements and their features
	3	Establish basic electrical and electronic circuits
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21	Course Content:	

Course Content:

Week	Theoretical	Practice
1	Introduction	Lectures on the analysis of expectations
2	Electrical Principles	Homework topics and information given

3	Electrical Measurement units	Problem solutions
4	Ohm's Law	Problem solutions
5	Electrical measuring instruments	Measurement applications
6	Electrical Circuits	Electrical circuit applications
7	Electrical Circuits	Electrical circuit applications
8	And Principles of Magnetism	Electrical circuit applications
9	Repeating courses and midterm exam	Electrical circuit applications
10	Electronic circuit elements	Examination of the electronic circuit components
11	Electronic circuit elements	Examination of the electronic circuit components
12	Various electronic circuitry	Circuit applications
13	Various electronic circuitry	Circuit applications
14	General Review	Circuit applications

22	Textbooks, References and/or Other Materials:	1. Vardar A., 2018. Elektrik ve Elektroniğin Temelleri, BUÜ Ders Notları No: 114, Bursa. 2. Çelebi H.H., 1999. Elektrik Bilgisi, Yüce yayınları, İstanbul. 3. Özkan T., 1995. Temel Elektronik, Kayhan Matbaası, İstanbul. 4. Ufuktepe Y. Ve Bozdemir S., 1997. Elektromanyetik Teori, Baki Kitabevi, Adana. 5. Boylestad R. Ve Nashelsky L., 1994. Elektronik Elemanlar ve Devre Teorisi, Evren Ofset, Ankara. 6. Bal G., 2001. Doğru Akım Makinaları ve Sürücüleri,

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	1.00	14.00
Self study and preperation	14	1.00	14.00
Homeworks	1	25.00	25.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	15.00	15.00
Others	0	0.00	0.00
Final Exams	1	20.00	20.00
Total Work Load			131.00
ECTS Credit of the Course			4.00

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Quiz	0	0.00
Final Exam	1	60.00
Contribution of Term (Year) Learning Activities to		40.00
Contribution of Final Exam to Success Grade		60.00
Total work load/ 30 hr		3.87
Measurement and Evaluation Techniques Used in the	Midterm Exam, Practice Exam and Final Exam	

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	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0
ÖK2	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0
ÖK3	4	4	3	0	5	0	0	0	0	0	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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