ELECTRO MECHANICAL CONTROL CIRCUITS

1	Course Title:	ELECTRO MECHANICAL CONTROL CIRCUITS
2	Course Code:	İSOZ201
3	Type of Course:	Compulsory
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):	2.00
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:	Ögr.Gör. Bülgan Tomaç Tel: 0224 2942895 btomac@uludag.edu.tr
17	Website:	
18	Objective of the Course:	In this course the purpose is having proficiency to design of electrical control circuits of HVAC systems to students.
19	Contribution of the Course to Professional Development:	Gains knowledge of control circuits.
20	Learning Outcomes:	
	1	To understand the general trend of refrigerator control circuits
	2	To understand the operating prencible of refrigerator control circuits
	3	To explain domestic, commercial and industrial type refrigerant control circuits
	4	To explain the central and individual air conditioning control circuit
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21	Course Content:	
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Week	Theoretical	Practice
1	Electrical circuit symbols, electrical circuit symbols in refrigerating units	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams

2	Electrical circuit symbols, electrical circuit symbols in refrigerating units	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
3	Electrical circuit diagrams, electrical circuit diagrams in the refrigerating units	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
4	Electrical circuit diagrams, electrical circuit diagrams in the refrigerating units	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
5	Starting, control and control of electric motor	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
6	Starting, control and control of electric motor	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
7	Air conditioning equipment electrical circuits	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
8	Air conditioning equipment electrical circuits	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
9	Air conditioning equipment electrical circuits	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
10	Central air conditioning equipment electrical circuits	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
11	Central air conditioning equipment electrical circuits	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
12	Central air conditioning equipment electrical circuits	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
13	Vehicle air conditioning and cooling systems electric circuits	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams
14	Cold storage electrical circuits	Getting to know electrical measuring instruments To follow control circuits Getting to know control circuit elements To explain the electrical, control and power circuit diagrams

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preparation	0	0.00	0.00
Homeworks	1	30.00	30.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	2	1.00	2.00
Others	0	0.00	0.00
Final Exams	1	1.00	1.00
Total Work Load			89.00
Total work load/ 30 hr			2.97
ECTS Credit of the Course			3.00

22	Textbooks, References and/or Other Materials:	[1] Türkmen Y., Geçtan C.,(1998). Kumanda Devreleri 1., Birsen Yayınevi, İstanbul. [2] Türkmen Y., Geçtan C.,(1998). Kumanda Devreleri 2., Birsen Yayınevi, İstanbul.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	2	30.00
Quiz	0	0.00
Home work-project	1	10.00
Final Exam	1	60.00
Total	4	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	3	4	4	3	3	4	1	1	1	1	1	0	0	0	0
ÖK2	3	4	4	3	4	3	2	2	1	1	2	2	0	0	0	0
ÖK3	4	3	4	3	4	4	2	2	2	2	2	2	0	0	0	0
ÖK4	4	3	4	3	3	3	4	2	2	1	1	2	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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