

HYDRAULIC PNEUMATIC

1	Course Title:	HYDRAULIC PNEUMATIC	
2	Course Code:	ELEZ202	
3	Type of Course:	Compulsory	
4	Level of Course:	Short Cycle	
5	Year of Study:	2	
6	Semester:	4	
7	ECTS Credits Allocated:	4.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	1	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Öğr.Gör. MEHMET ŞEN	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	mehmetsen@uludag.edu.tr U.Ü. Teknik Bilimler Meslek Yüksek Okulu Elektrik Programı- Görükle Kampüsü	
17	Website:		
18	Objective of the Course:	To understand the working principles of hydraulic and pneumatic control systems, these control systems circuit edit and establish a hydraulic circuit in accordance with the criteria.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Explains basic hydraulic principles and solve numerical problems.
		2	Explains the elements and functions of hydraulic circuit.
		3	Draws the symbols of hydraulic circuit components and circuits establishes.
		4	Remembers the failures and maintenance methods in hydraulic circuit elements.
		5	Analyses ways to provide hydraulic circuit elements and criteria in order.
		6	Explains basic pneumatic principles and solve numerical problems.
		7	Explains the elements and functions of pneumatic circuit.
		8	Draws the symbols of pneumatic circuit components and circuits establishes.
		9	Remembers the failures and maintenance methods in pneumatic circuit elements.
		10	Analyses ways to provide pneumatic circuit elements and criteria in order.
21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Lessons to inform and identifying hydraulic circuit elements.		

2	Creating hydraulic circuit diagram.	Creating hydraulic circuit diagram.
3	Detecting failures in hydraulic systems.	To detect hydraulic failure.
4	Troubleshooting hydraulic failure.	To detect and troubleshoot hydraulic failure.
5	Identifying pneumatic circuit elements.	
6	Creating pneumatic circuit diagram.	Creating pneumatic circuit diagram.
7	Creating electro pneumatic systems.	Creating electro pneumatic systems.
8	Creating electro pneumatic systems.	Creating electro pneumatic systems.
9	Repeating courses and midterm exam	
10	Detecting failures in pneumatic systems.	To detect pneumatic systems.
11	Troubleshooting pneumatic failure.	To detect and troubleshoot pneumatic failure.
12	To make periodic checks of systems.	To make periodic checks of systems.
13	To make periodic maintenance of systems.	To make periodic checks and maintenance of systems.
14	To make fault detection and repair the defective machine.	To make fault detection and repair the defective machine.

22	Textbooks, References and/or Other Materials:	Michael J.P. ve Ashby J.G. Güç Hidroliği, 1994. Küçük M. Hidrolik ve Pnömatik, 2003. Genel Hidrolik (M. Emin ZORKUN) Pnömatik (Peter PATIENT) Hidrolik Kumanda Sistemleri (M. Emin ZORKUN)
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23	Assesment
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TERM I LEARNING ACTIVITIES		NUMBER	WEIGHT		
Activities			Number	Duration (hour)	Total Work Load (hour)
Theoretical			14	2.00	28.00
Home work-project	0	0.00			
Practicals/Labs			14	2.00	28.00
Self study and preparation	3	100.00		0.00	0.00
Total					
Homeworks			0	0.00	0.00
Projects			0	0.00	0.00
Field Studies			0	0.00	0.00
Midterm exams			2	22.00	44.00
Total			100.00		
Others			0	0.00	0.00
Final Exams			1	20.00	20.00
Total Work Load					164.00
Total work load/ 30 hr					4.00
ECTS Credit of the Course					4.00

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	3	0	3	3	4	3	4	3	3	4	0	0	0	0
ÖK2	3	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
ÖK3	4	4	3	4	0	0	0	0	0	0	3	0	0	0	0	0
ÖK4	4	5	0	0	0	0	0	4	3	0	0	0	0	0	0	0

ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK10	0	0	0	0	0	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			