

PNEUMATIC POWER TRANSMISSION

1	Course Title:	PNEUMATIC POWER TRANSMISSION
2	Course Code:	MAK4045
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	7
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:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Öğr.Gör.Dr. MESUT ŞENGİRĞİN
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	smesut@uludag.edu.tr , 0-224-2941987 U.Ü. MMF MAK. Müh. Böl. Görükle-BURSA
17	Website:	
18	Objective of the Course:	The introduction and operation procedure of pneumatic system devices. Sample circuits and application and the computer simulation of basic pneumatic circuits.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Students learn basic concepts of pneumatic systems
	2	Students learn basic elements and properties of pneumatic systems-compressor, valve, cylinder etc.
	3	Students are able to select the elements of pneumatic systems
	4	Students are able to install basic pneumatic circuit
	5	Student are able to use proper programs for pneumatic circuit design
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Introduction of basic concepts in pneumatic systems	
2	Advantages and disadvantages of pneumatic systems	

3	Preparation of pressurized air, types and characteristics of compressors in pneumatic systems	
4	Air-conditioners and their characteristics	
5	Characteristics of pneumatic cylinders and determination of cylinder dimentions	
6	Control elements and their characteristics in pneumatic systems	
7	Pneumatic sensors	
8	Path-step graphics in pneumatic systems	
9	Sample circuit analysis	
10	Repeating courses and midterm exam	
11	Installation of sample basic pneumatic circuit	
12	Installation of sample basic pneumatic circuit	
13	Introduction of computer programs for analyzing systems and analyses of models	
14	Analyses of models	

22	Textbooks, References and/or Other Materials:	1. Werner Deppert ve Kurt Stoll, Pnömatik Kumandalar, Çev:Atilla Bir, Vogel yay.1997. 2. Werner Deppert ve Kurt Stoll, Pnömatikle Maliyetlerin Azaltılması, Çev: Osman Türkay ve ark., 3. Festo-Didaktik eğitim notları 4. Fatih Özcan ve ark. Pnömatik Akışkan Gücü, Mert Eğitim Yayınları, 1986
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Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical	R	14	2.00	28.00
Practicals/Labs		0	0.00	0.00
Self study and preperation	0	0	3.00	42.00
Homeworks		0	0.00	0.00
Final Exam	1	60.00	0.00	0.00
Field Studies		0	0.00	0.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00	10.00	10.00
Others		0	0.00	0.00
Contribution of Final Exam to Success Grade		60.00	10.00	10.00
Total Work Load				90.00
Measurement and Evaluation Techniques Used in the Course				3.00
ECTS Credit of the Course				3.00

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	4	5	4	3	3	4	2	2	5	4	3	4	5	0	0
ÖK2	4	4	5	4	3	3	4	2	2	5	4	3	4	5	0	0
ÖK3	4	4	5	4	3	3	4	2	2	5	4	3	4	5	0	0
ÖK4	4	4	5	4	3	3	4	2	2	5	4	3	4	5	0	0

ÖK5	4	4	5	5	3	3	4	2	2	5	4	3	4	5	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			