AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Hyraulic and Pneumatic								
Course Code	OTE254		Couse Level		Short Cycle (Associate's Degree)				
ECTS Credit	5	Workload	125 *(Hours)*	Theory	3	Practice	1	Laboratory	0
Objectives of the Course	In this course, students learn the hydraulic-pneumatic circuit elements on the circuit systems, maintenance and repair of looms building .								
Course Content	Recognize the elements of the hydraulic circuit, hydraulic circuit diagram to create, Detecting faults in hydraulic systems, hydraulic malfunctions Troubleshooting ,Identify pneumatic circuit elements, creating pneumatic circuit diagram, electro-pneumatic systems, to create, to create electro-pneumatic systems, pneumatic systems to detect failures Troubleshooting Faults air, make periodic checks of systems Make periodic maintenance of the systems, making the detection of the fault, repair of the faulty machine.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Individual Study								
Name of Lecturer(s)	Ins. Cemal GÖVEN, Ins. İsmail MERSİNKAYA								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Hidrolik Akışkan Gücü-FAtih Özcan-Mert Eğitim Yayınları
2	Hidrolik-Pnömatik FESTO -Yayınları

Week	Weekly Detailed Course Contents	
1	Theoretical	Recognize the elements of the hydraulic circuit
2	Theoretical	Create Hydraulic Circuit Diagram
3	Theoretical	Detecting faults in hydraulic systems
4	Theoretical	Troubleshooting Power Failures
5	Theoretical	Identify pneumatic circuit elements
6	Theoretical	Create Pneumatic Circuit Diagram
7	Theoretical	Create electro-pneumatic systems
8	Theoretical	Create electro-pneumatic systems
9	Theoretical	Pneumatic systems to identify failures
10	Theoretical	Pneumatic Troubleshooting Faults
11	Theoretical	Systems to make periodic checks
12	Theoretical	Periodic maintenance of the systems do
13	Theoretical	Make Fault Detection
14	Theoretical	Repair of the Faulty machine
15	Theoretical	Repair of the Faulty machine

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	0	3	45
Lecture - Practice	15	0	1	15
Assignment	9	0	4	36
Studio Work	9	0	3	27
Midterm Examination	1	0	1	1

Final Examination	1	0	1	1
			Total Workload (Hours)	125
			[Total Workload (Hours) / 25*] = **ECTS**	5
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Transactions related to hydraulic systems
2	Transactions related to pneumatic systems
3	Basic maintenance and repair of looms
4	To identify elements in drawn circuits and interpretation of running circuits
5	To be able to select elements for a new designed circuit and construct circuit

Programme Outcomes *(Automotive Technology)*	
1	Using the basic knowledge and skills acquired in his/her field of study, to have the ability to evaluate and interpret the data, to define and analyze the problems, to make solution suggestions based on evidence and proofs.
2	To choose and use efficiently contemporary techniques and means as well as information technologies required for the applications related to the field of study.
3	The ability to apply the processes related to industrial and service sector by examining.
4	To gain the ability to produce solutions to unforeseen situations, take responsibility in teams and to have the skill to conduct individual works.
5	To achieve an awareness of the necessity of lifelong learning and consistently self-improving besides of following the developments in science and technology.
6	To become skillful at using computer hardware and software in a baseline level required by the field of study.
7	To be aware of Business Law, Job Security, environmental protection and quality concepts.
8	To have a command of communication skills and foreign language in order to communicate efficiently and follow the latest developments in his/her field of study.
9	Acquiring enough conceptual and applied knowledge in Mathematics, Science and Basic Engineering issues related to his/her field.
10	To plan the processes in automotive technology field to meet the expectations of the sector.
11	To become skillful at making designs by means of technical and computer-aided drawings and simulation programs, and by using various software programs to be able to choose systems and components required in by the field apart from making the basic sizing computations and drawing the architectural and static projects and details.
12	Ability to use the methods and techniques of career planning and discussing the effects of character traits on career preferences.
13	To provide them with knowledge about substance use and addiction problem and prevention methods.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P1	4	4	5	5	5
P2	5	5	5	5	5
P3	5	5	5	3	5
P4	5	5	5	3	5
P5	2	2	2	1	
P6	3	3	3	3	5
P7	2	2	3		
P9	3	3			5
P10	3	3	3	3	3
P11	3	3	3	3	5