



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Heating and Cooling Systems							
Course Code		OTE213		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	2	Workload	50 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		This course is aimed to maintain and repair the heating and cooling systems.							
Course Content		In this course students learn how to repair elements found in the vehicle's air-conditioning system controls.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)		Ins. Cemal GÖVEN							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Oto Klima Sistemleri / Megep ders notları
---	---

Week	Weekly Detailed Course Contents	
1	Theoretical	Air Conditioning Compressors
2	Theoretical	Evaporator, condenser
3	Theoretical	Air Conditioning Hoses, Air Conditioning Control Panel
4	Theoretical	Gas Leak Testing Equipment, Air Gases
5	Theoretical	Air Conditioning Pressure Sensor
6	Theoretical	Outside Air Temperature Sensor, Indoor Air Temperature Sensor
7	Theoretical	Heater Motors
8	Theoretical	Central Heating Radiators
9	Theoretical	Air Routing Engines Plate
10	Theoretical	Heater Control Panel
11	Theoretical	Heating resistances
12	Theoretical	Relays
13	Theoretical	Air Steering Hoses
14	Theoretical	blowpipe
15	Theoretical	blowpipe

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	0	2	30
Assignment	1	0	3	3
Studio Work	15	0	1	15
Midterm Examination	1	0	1	1
Final Examination	1	0	1	1
Total Workload (Hours)				50
[Total Workload (Hours) / 25*] = ECTS				2

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Air conditioning compressor, evaporator, and turn-down valve, radiator, condenser and moisture-retaining filter, radiator, air hose and records, may change by controlling the air conditioning control panel.
2	Air conditioning will be able to test gas leakage. Air conditioning may change by controlling the pressure sensor.



3	Gas discharge and re-charge up the air conditioning system. By controlling the outside air temperature sensor may change. May change by controlling the internal air temperature sensor.
4	Engine heater, central heating radiator, air motors and heating control panel, steering damper, heat resistance, heat resistance, heat relay, may change by controlling the direction of air hoses and blow-lamps.
5	Control, maintain and repair of the all heating and ventilation system parts

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	5	5	5	5	5
P2	5	5	5	5	5
P3	5	5	5	5	5
P4	5	5	5	5	5
P5	4	3	4	3	4
P6	4	4	4	4	4
P7	4	3	4	3	4
P10	4	3	3	3	5
P11	5	5	5	5	5

