

### AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title	General Automotive Technolgies							
Course Code	OTE252		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit 5	Workload	125 (Hours)	Theory	3	Practice 1 Laboratory		Laboratory	0
Objectives of the Course Students understand the gen automotive sector in today's			eneral workir s technologie	ng principles and make	s of automobil e simple main	es, follow the tenance of ca	developments in ars.	the
Course Content Motor, Terms, Cycles in Tw Engine Parts, Lubrication S Vehicles Fuel System, Veh Systems, Brake Systems a Controls of Engine System Techniques.			o- and Four- ystem, Cooli cle Aerodyn nd Power Tr s, Fault Findi	Stroke Eng ing System amics and I ansmission ing, Diagnos	jines, Otto Cy , Electrical Sy Bodywork Sys Systems, Sat stics, General	cles, Diesel C stem, Gasolin stem , Adjustn fety and Comi Vehicle Main	Cycles, Fixed and I ne Fuel System, D nent and Tires, St fort Systems, Vari ntenance, Driving	Mobile iesel eering ous
Work Placement N/A								
Planned Learning Activities and Teaching Methods		Explanation	n (Presenta	tion), Individu	al Study			
Name of Lecturer(s)								

### Assessment Methods and Criteria

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

# **Recommended or Required Reading**

1 Bosch Automotive Handbook

Week	Weekly Detailed Co	urse Contents
1	Theoretical	Engine, Terms
2	Theoretical	Cycles in Two and Four Stroke Engines, Otto Cycles, Diesel Cycles
3	Theoretical	Fixed and Movable Motor Parts
4	Theoretical	Lubrication System, Cooling System.
5	Theoretical	Electrical System
6	Theoretical	Gasoline Vehicles Fuel System
7	Theoretical	Diesel Vehicles Fuel System
8	Theoretical	Vehicle Aerodynamics and Bodywork System
9	Theoretical	Front Layouts, Adjustment and Tires
10	Theoretical	Steering Systems
11	Theoretical	Brake Systems and Power Transmission Systems
12	Theoretical	Security and Comfort Systems
13	Practice	Various Controls of Engine Systems
14	Practice	Diagnostics, Diagnostics
15	Practice	General Vehicle Maintenance, Driving Techniques

# **Workload Calculation**

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	0	3	45
Lecture - Practice	15	1	1	30



Assignment	1		10	0	10		
Studio Work	5		2	1	15		
Individual Work	5		2	2	20		
Midterm Examination	1		1	1	2		
Final Examination	1		2	1	3		
Total Workload (Hours) 125							
[Total Workload (Hours) / 25*] = <b>ECTS</b> 5							
*25 hour workload is accepted as 1 ECTS							

# Learning Outcomes

1	Understands the main and stationary parts of the motor.	
2	Understand the operation principles and cycles of two and four stroke engines.	
3	Understand the lubrication system, cooling system, electrical system, fuel systems of gasoline and diesel vehicles.	
4	Understands vehicle aerodynamics, front layouts, settings and tire technology.	
5	Understand steering systems, brake systems, power train systems, safety and comfort systems.	
6	Understand the various controls of motor systems, especially fault finding, diagnosis and general maintenance.	
7	Comprehend driving techniques.	

# 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	L6	L7
P1	4	5	5	5	5	5	5
P2	3	4	4	5	5	5	4
P3	2	3	3	5	5	5	3
P4	4	3	3	3	3	5	3
P5	2	3	3	4	4	2	1
P6	2	3	3	3	3	5	2
P7	2	2	5	3	3	3	
P9		3	3	4	4	2	
P10	4	3	3	5	5	5	4
P11	3	4	4	5	5	4	1

