AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Fuel And Ignition Systems Of Spark Ignition Engines						
Course Code	OTT104		Couse Level	Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 *(Hours)*	Theory	3	Practice	1	Laboratory	0
Objectives of the Course	In this course, it is aimed to make maintenance and repair of fuel and ignition systems of petrol engines.						
Course Content	Working principles of fuel and ignition systems of petrol engines						
Work Placement	N/A						
Planned Learning Activities and Teaching Methods		Explanation (Presentation)					
Name of Lecturer(s)	Assoc. Prof. Erdinç VURAL						

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Petrol Engine Fuel Spraying Systems

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic Electrical Information Duties and Types of Ignition System Platinum Controlled Electronic Ignition System
2	Theoretical	Platinum Controlled Transistor Ignition System Hall Effect (Hall Effect) Controlled Electronic Ignition System
3	Theoretical	Inductive Electronic Ignition System Distributed System
4	Theoretical	Distributorless Type Electronic Ignition System
5	Theoretical	Advance payment Magnetic Sensor (Position Sensor) Electronic Control Unit sheaves
6	Theoretical	Knock Sensor Spark plugs
7	Theoretical	Electronic Circuits and Circuit Elements Sensors
8	Theoretical	Single Point Injection System Single Point Injection System Circuit Schematic and Operating System Electronic Control Module Single Point Injector
9	Intermediate Exam	Midterm
10	Theoretical	Pressure Regulator Throttle Potentiometer, Electric Fuel Pump Lambda Sensor (Oxygen Sensor)
11	Theoretical	Multipoint Injection System Multi-Point Injection System Circuit Schematic and Operation System
12	Theoretical	Electronic Control Module Multipoint Injector
13	Theoretical	Throttle Potentiometer Fuel Ramp (Fuel Distribution Line) Direct Injection System Direct Injection System Circuit Schematic and Operating System
14	Theoretical	Electronic Control Module Direct Injectors Air Temperature Sensor Pressure Regulator Throttle Potentiometer

15	Theoretical	Elektro Yakıt Pompası Termik Zaman Şalteri, Kam Mili Konum Sensörü
16	Final Exam	Semester final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Lecture - Practice	14	0	1	14
Seminar	10	0	1	10
Term Project	2	0	1	2
Laboratory	5	0	1	5
Reading	5	0	2	10
Quiz	5	0	1	5
Midterm Examination	1	5	1	6
Final Examination	1	5	1	6
			Total Workload (Hours)	100
		[Total Workload (Hours) / 25*] = **ECTS**		4

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Hall-effect controlled electronic ignition systems will be checked and replaced
2	It will be able to control and replace the platinum-controlled transistor electronic ignition system.
3	He will be able to control and replace the magnetic control electronic ignition system.
4	It will be able to perform maintenance and repair of independent (direct) ignition systems for each cylinder
5	Maintenance and repair of single point, multi point and direct injection system

Programme Outcomes (Automotive Technology)

1	To be able to interpret and evaluate data, identify problems, analyze them, and develop evidence-based solutions by using basic knowledge and skills in the field.
2	Must be able to choose and effectively use the modern techniques, tools and information technologies necessary for field related applications.
3	Must be able to gain practical skills by examining relevant processes in industry and service sector on site.
4	They must be able to produce solutions, take responsibility for teams or do individual work when they encounter situations unforeseen in the field related applications.
5	Awareness of the need for lifelong learning; it must be able to follow the developments in science and technology and to constantly renew itself.
6	Must be able to use computer software and hardware at the basic level required by the field
7	Must have job security, worker health, environmental protection knowledge and quality awareness.
8	He must possess a level of foreign language knowledge that is capable of following the innovations in his area of expertise and communication techniques.
9	Must be able to acquire basic theoretical and practical knowledge about the field in mathematics, science and basic engineering.
10	It should have the ability to plan the processes / processes of the Automotive Program to meet the expectations of the sector.
11	To be able to design the systems and components related to the field by using technical drawing, computer aided drawing, designing using simulation programs and using various softwares, to be able to make basic sizing calculations, to be able to master professional plans and projects.

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	4	4	4	4	4
P4	4	4	4	4	4
P5	4	4	4	4	4
P6	3	3	3	3	3
P7	1	1	1	1	1

P8	1	1	1	1	1
P9	1	1	1	1	1
P10	1	1	1	1	1
P11	3	2	2	3	3