AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	New Technologies in Automotive								
Course Code	OTE214		Couse Level	Short Cycle (Associate's Degree)					
ECTS Credit	3	Workload	75 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The goal of this course is to learn the new automotive technologies and make connections to other scientific disciplines.								
Course Content	New technologies in gasoline and diesel engines, New technologies in safety systems, New technologies in comfort systems, New technologies in control systems, New technologies in transmission systems								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Individual Study, Problem Solving								
Name of Lecturer(s)									

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

Recommended or Required Reading	
1	Bosch Automotive Handbook

Week	Weekly Detailed Course Contents	
1	Theoretical	Course description and general concepts.Explaining the research methodology of new technologies in automotive.
2	Theoretical	New developments in automotive engine technology.
3	Theoretical	New developments in automotive safety technologies.
4	Theoretical	New developments in hybrid vehicle technology.
5	Theoretical	New developments in electric vehicle technology.
6	Theoretical	New technologies and developments in automotive powertrain.
7	Theoretical	New technologies and developments in automotive electrical and electronic systems.
8	Theoretical	New technologies and developments in the automotive comfort system.
9	Theoretical	New technologies and developments in automotive multimedia systems.
10	Theoretical	New technologies and developments in automotive driving systems.
11	Theoretical	New technologies and developments in automotive driving systems.
12	Theoretical	New technologies and developments in alternative fuel usage in automotive.
13	Theoretical	Current developments in the automotive electromechanical sector.
14	Theoretical	Up-to-date technologies used in automotive services.
15	Theoretical	Up-to-date technologies used in automotive services.

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	15	0	2	30
Assignment	5	0	3	15
Individual Work	1	8	20	28
Midterm Examination	1	0	1	1
Final Examination	1	0	1	1
			Total Workload (Hours)	75
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	The student follows current developments in the automotive sector.

2	The student learns current technologies in the field of automotive.
3	The student predicts how automotive technology will be shaped in the future as knowledgeable about today's technologies.
4	After the student has graduated from learning new technologies, he will have the foresight if he does not select the specialist area.
5	The student has information about how your future automotive technician should be.
6	In the light of new technologies, students produce innovative ideas about automotive technology.

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
P1	4	4	5	3	4	5
P2	5	5	5	3	5	5
P3	4	5	4	4	4	5
P4	4	4	5	4	5	5
P5	5	5	5	4	5	5
P6	4	4	4	4	5	5
P7	4	4				
P8	2	2	3	2	2	3
P10	4	4	3	5	5	5
P11	4	3	4	4	4	5