INTRODUCTION TO AUTOMOTIVE ENGINEERING

1	Course Title:	INTRODUCTION TO AUTOMOTIVE ENGINEERING
2	Course Code:	OTO1001
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	2.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	Yok
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. GÖKHAN SEVİLGEN
15	Course Lecturers:	Otomotiv Mühendisliği Bölümü Öğretim Üyeleri
16	Contact information of the Course Coordinator:	Bursa Uludağ Üniversitesi Mühendislik Fakültesi Otomotiv Mühendisliği Bölümü
17	Website:	None
18	Objective of the Course:	This course aims to provide an introduction to automotive engineering. It is designed to enable the students to have knowledge and understanding of basic principles of automotive engineering and related topics.
19	Contribution of the Course to Professional Development:	Contribution of the course to professional development is to learn about the basic principles of automotive engineering
20	Learning Outcomes:	
	1	Demonstrate knowledge and understanding of Automotive Engineering
	2	Explain the basic principles of automotive sytems and parts, and functions of these systems and parts.
	3	Demonstrate knowledge and understanding of automotive design and manufacturing processes for automotive products and systems
	4	Demonstrate knowledge and understanding of economics and social context of automotive engineering in practice and its impact on the wider society.
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21	Course Content:	

Course Content:

Week	Theoretical	Practice
1	Automotive Engineering, History of Automotive	

2	Vehicle design and dynamics	
3	Vehicle manufacturing processes and methods	
4	Vehicle safety	
5	Vehicle parts and systems	
6	Vehicle propulsion systems	
7	Engines	
8	Hybrid vehicles	
9	Fuels, combustion and emissions	
10	Vehicle transmission parts and sytems	
11	Vehicle electric and electronic systems	
12	Mechatronics	
13	Electric vehicles	
14	Automotive industry and technological developments	

22	Textbooks, References and/or Other Materials:	•Advanced Vehicle Technology, H. Heisler, 2nd Edition, Butterworth-Heinemann, London, 2002. •The Motor Vehicle, Garrett, Newton, and Steeds, 13th Edition, Butterworth-Heinemann, Oxford, 2001.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBE**	**WEIGHT**
Theoretical	2	15.00
Practicals/Labs	4	100.00
Total		100.00
Success Grade		100.00
Midterm exams	1	5.00
Course		5.00
Final Exams	1	5.00

Activites	Number	Duration (hour)	Total Work Load (hour)
Home work-project	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	1.00	14.00
Homeworks	2	1.00	2.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	5.00	5.00
Others	0	0.00	0.00
Final Exams	1	5.00	5.00
Total Work Load			59.00
Total work load/ 30 hr			1.80
ECTS Credit of the Course			2.00

25	**CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS**															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
ÖK2	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	4	0	0	0	0	5	0	4	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High