



ULUDAĞ UNIVERSITY
INSTITUTE OF NATURAL SCIENCES
2017-2018 ACADEMIC YEAR COURSE PLAN

DEPARTMENT OF	AUTOMOTIVE ENGINEERING
DEPARTMENT / PROGRAM	Automotive Engineering/ Master's Degree Program

COURSE STAGE	I. TERM / FALL								II. TERM / SPRING							
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS
	OTO5191	MASTER THESIS I	C	0	1	0	0	1	OTO5000	RESEARCH TECHNIQUES and PUBLICATION ETHICS in AUTOMOTIVE ENGINEERING	C	2	0	0	2	2
									OTO5102	NUMERICAL ANALYSIS AND OPTIMIZATION METHODS IN AUTOMOTIVE ENGINEERING	C	3	0	0	3	6
									OTO5192	MASTER THESIS II	C	0	1	0	0	1
									OTO5172	SEMINAR	C	0	2	0	0	4
	OTO5181	ADVANCED TOPICS IN MASTER THESIS I	E	4	0	0	0	5	OTO5182	ADVANCED TOPICS IN MASTER THESIS II	E	4	0	0	0	5
	OTO5101	AUTOMOTIVE ENGINEERING	E	3	0	0	3	6	OTO5112	VEHICLE DYNAMICS	E	3	0	0	3	6
	OTO5111	VEHICLE DESIGN	E	3	0	0	3	6	OTO5114	ALTERNATIVE PROOULSION SYSTEMS	E	3	0	0	3	6
	OTO5115	AUTOMOTIVE MATERIALS	E	3	0	0	3	6	OTO5120	PRODUCTION AND ASSEMBLY TECHNOLOGIES	E	3	0	0	3	6
	OTO5117	MOTOR VEHICLES AND THEIR EVOLUTION	E	3	0	0	3	6	OTO5124	ENGINE DESIGN AND CONTROL FUNDAMENTALS	E	3	0	0	3	6
	OTO5119	AUTOMOTIVE TRANSMISSION DESIGN	E	3	0	0	3	6	OTO5128	FINITE ELEMENT APPLICATIONS IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6
	OTO5121	DEVELOPING FORMS AND DESIGNING THE BODY WORK	E	3	0	0	3	6	OTO5130	VEHICLE INTERIOR DESIGN	E	3	0	0	3	6
	OTO5123	ELECTRIC AND ELECTRONIC SYSTEMS FOR VEHICLES	E	3	0	0	3	6	OTO5134	AERODYNAMIC MODELLING FUNDAMENTALS	E	3	0	0	3	6
	OTO5127	INTERNAL COMBUSTION ENGINE DESIGN	E	3	0	0	3	6	OTO5136	ADVANCED TOPICS IN INTERNAL COMBUSTION ENGINES	E	3	0	0	3	6
	OTO5129	MIXTURE FORMATION IN INTERNAL COMBUSTION ENGINES	E	3	0	0	3	6	OTO5138	VEHICLE OUT EMISSIONS AND THEIR CONTROL	E	3	0	0	3	6
	OTO5131	INTERNAL COMBUSTION ENGINES	E	3	0	0	3	6	OTO5140	ADVANCED MANUFACTURING TECHNIQUES FOR VEHICLES	E	3	0	0	3	6
	OTO5133	APPLICATION OF INTERNAL COMBUSTION ENGINES ON VEHICLE	E	3	0	0	3	6	OTO5142	INTERFACE CIRCUITS IN AUTOMOTIVE ELECTRONICS	E	3	0	0	3	6
	OTO5135	VIBRATION AND NOISE IN VEHICLES	E	3	0	0	3	6	OTO5144	EMBEDDED CONTROL SYSTEMS IN VEHICLES	E	3	0	0	3	6
	OTO5137	FUNDAMENTALS OF FINITE ELEMENT ANALYSIS	E	3	0	0	3	6	OTO5146	INTERNAL COMBUSTION ENGINE TESTS	E	3	0	0	3	6
	OTO5139	NUMERICAL MODELING AND SIMULATION	E	3	0	0	3	6	OTO5148	TRIBOLOGICAL SYSTEMS IN AUTOMOTIVE	E	3	0	0	3	6
	OTO5141	VEHICLE HVAC SYSTEMS AND THERMAL COMFORT	E	3	0	0	3	6	OTO5150	FLUID CONTROL SYSTEMS AND APPLICATION IN VEHICLES	E	3	0	0	3	6
	OTO5143	SENSORS AND ACTUATORS IN VEHICLES	E	3	0	0	3	6	OTO5152	VEHICLE SUSPENSION SYSTEMS DESIGN	E	3	0	0	3	6
	OTO5145	ON-BOARD DIAGNOSTIC SYSTEMS IN VEHICLES	E	3	0	0	3	6	OTO5154	COMPUTER AIDED SIMULATION IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6
	OTO5147	MODELLING OF ENGINEERING SYSTEMS IN AUTOMOTIVE	E	3	0	0	3	6								
	OTO5149	USE OF POLYMERS IN VEHICLES	E	3	0	0	3	6								

	OTO5151	VEHICLE DISCRETE-TIME CONTROL SYSTEMS	E	3	0	0	3	6									
	OTO5153	ADVANCED STRENGTH OF MATERIALS	E	3	0	0	3	6									
	Total Credits			12			30		Total Credits							11	30
STAGE THESIS	III. TERM / FALL								IV. TERM / SPRING								
	OTO5183	ADVANCED TOPICS IN MASTER THESIS III	C	4	0	0	0	5	OTO5184	ADVANCED TOPICS IN MASTER THESIS IV	C	4	0	0	0	5	
	OTO5193	MASTER THESIS III	C	0	1	0	0	25	OTO5194	MASTER THESIS IV	C	0	1	0	0	25	
	Total Credits			0			30	Total Credits							0	30	
TOTAL CREDITS: 23 - TOTAL ECTS: 120																	

Not: The student have the option of choosing one selective course from another department with the endorsement of the supervisor.



ULUDAĞ UNIVERSITY
INSTITUTE OF NATURAL SCIENCES
2017-2018 ACADEMIC YEAR COURSE PLAN

DEPARTMENT OF	AUTOMOTIVE ENGINEERING
DEPARTMENT / PROGRAM	Automotive Engineering/ Master's Degree Program (Secondary Education)

COURSE STAGE	I. TERM / FALL								II. TERM / SPRING							
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS
	OTO5191	MASTER THESIS I	C	0	1	0	0	1	OTO5000	RESEARCH TECHNIQUES and PUBLICATION ETHICS in AUTOMOTIVE ENGINEERING	C	2	0	0	2	2
									OTO5102	NUMERICAL ANALYSIS AND OPTIMIZATION METHODS IN AUTOMOTIVE ENGINEERING	C	3	0	0	3	6
									OTO5192	MASTER THESIS II	C	0	1	0	0	1
									OTO5172	SEMINAR	C	0	2	0	0	4
	OTO5181	ADVANCED TOPICS IN MASTER THESIS I	E	4	0	0	0	5	OTO5182	ADVANCED TOPICS IN MASTER THESIS II	E	4	0	0	0	5
	OTO5101	AUTOMOTIVE ENGINEERING	E	3	0	0	3	6	OTO5112	VEHICLE DYNAMICS	E	3	0	0	3	6
	OTO5111	VEHICLE DESIGN	E	3	0	0	3	6	OTO5114	ALTERNATIVE PROOULSION SYSTEMS	E	3	0	0	3	6
	OTO5115	AUTOMOTIVE MATERIALS	E	3	0	0	3	6	OTO5120	PRODUCTION AND ASSEMBLY TECHNOLOGIES	E	3	0	0	3	6
	OTO5117	MOTOR VEHICLES AND THEIR EVOLUTION	E	3	0	0	3	6	OTO5124	ENGINE DESIGN AND CONTROL FUNDAMENTALS	E	3	0	0	3	6
	OTO5119	AUTOMOTIVE TRANSMISSION DESIGN	E	3	0	0	3	6	OTO5128	FINITE ELEMENT APPLICATIONS IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6
	OTO5121	DEVELOPING FORMS AND DESIGNING THE BODY WORK	E	3	0	0	3	6	OTO5130	VEHICLE INTERIOR DESIGN	E	3	0	0	3	6
	OTO5123	ELECTRIC AND ELECTRONIC SYSTEMS FOR VEHICLES	E	3	0	0	3	6	OTO5134	AERODYNAMIC MODELLING FUNDAMENTALS	E	3	0	0	3	6
	OTO5127	INTERNAL COMBUSTION ENGINE DESIGN	E	3	0	0	3	6	OTO5136	ADVANCED TOPICS IN INTERNAL COMBUSTION ENGINES	E	3	0	0	3	6
	OTO5129	MIXTURE FORMATION IN INTERNAL COMBUSTION ENGINES	E	3	0	0	3	6	OTO5138	VEHICLE OUT EMISSIONS AND THEIR CONTROL	E	3	0	0	3	6
	OTO5131	INTERNAL COMBUSTION ENGINES	E	3	0	0	3	6	OTO5140	ADVANCED MANUFACTURING TECHNIQUES FOR VEHICLES	E	3	0	0	3	6
	OTO5133	APPLICATION OF INTERNAL COMBUSTION ENGINES ON VEHICLE	E	3	0	0	3	6	OTO5142	INTERFACE CIRCUITS IN AUTOMOTIVE ELECTRONICS	E	3	0	0	3	6
	OTO5135	VIBRATION AND NOISE IN VEHICLES	E	3	0	0	3	6	OTO5144	EMBEDDED CONTROL SYSTEMS IN VEHICLES	E	3	0	0	3	6
	OTO5137	FUNDAMENTALS OF FINITE ELEMENT ANALYSIS	E	3	0	0	3	6	OTO5146	INTERNAL COMBUSTION ENGINE TESTS	E	3	0	0	3	6
	OTO5139	NUMERICAL MODELING AND SIMULATION	E	3	0	0	3	6	OTO5148	TRIBOLOGICAL SYSTEMS IN AUTOMOTIVE	E	3	0	0	3	6
	OTO5141	VEHICLE HVAC SYSTEMS AND THERMAL COMFORT	E	3	0	0	3	6	OTO5150	FLUID CONTROL SYSTEMS AND APPLICATION IN VEHICLES	E	3	0	0	3	6
	OTO5143	SENSORS AND ACTUATORS IN VEHICLES	E	3	0	0	3	6	OTO5152	VEHICLE SUSPENSION SYSTEMS DESIGN	E	3	0	0	3	6
	OTO5145	ON-BOARD DIAGNOSTIC SYSTEMS IN VEHICLES	E	3	0	0	3	6	OTO5154	COMPUTER AIDED SIMULATION IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6
	OTO5147	MODELLING OF ENGINEERING SYSTEMS IN AUTOMOTIVE	E	3	0	0	3	6								
	OTO5149	USE OF POLYMERS IN VEHICLES	E	3	0	0	3	6								

	OTO5151	VEHICLE DISCRETE-TIME CONTROL SYSTEMS	E	3	0	0	3	6										
	OTO5153	ADVANCED STRENGTH OF MATERIALS	E	3	0	0	3	6										
	Total Credits			12			30		Total Credits								11	30
STAGE THESIS	III. TERM / FALL								IV. TERM / SPRING									
	OTO5183	ADVANCED TOPICS IN MASTER THESIS III	C	4	0	0	0	5	OTO5184	ADVANCED TOPICS IN MASTER THESIS IV	C	4	0	0	0	5		
	OTO5193	MASTER THESIS III	C	0	1	0	0	25	OTO5194	MASTER THESIS IV	C	0	1	0	0	25		
	Total Credits			0			30	Total Credits								0	30	
TOTAL CREDITS: 23 - TOTAL ECTS: 120																		

Not: The student have the option of choosing one selective course from another department with the endorsement of the supervisor.



ULUDAĞ UNIVERSITY
INSTITUTE OF NATURAL SCIENCES
2017-2018 ACADEMIC YEAR COURSE PLAN

DEPARTMENT OF AUTOMOTIVE ENGINEERING
DEPARTMENT / PROGRAM Automotive Engineering / Doctoral Program

COURSE STAGE	I. TERM / FALL								II. TERM / SPRING									
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS		
	OTO6191	PHD THESIS I	C	0	1	0	0	1	FEN6000	RESEARCH TECHNIQUES and PUBLICATION ETHICS	C	2	0	0	2	2		
	OTO6101	AUTOMOTIVE DESIGN, MANUFACTURING AND PROJECT MANAGEMENT	C	3	0	0	3	6	OTO6192	PHD THESIS II	C	0	1	0	0	1		
	OTO6181	ADVANCED TOPICS IN PHD THESIS I	E	4	0	0	0	5	OTO6172	SEMINAR	C	0	2	0	0	4		
	OTO6111	VEHICLE CRASH ANALYSIS METHODS	E	3	0	0	3	6	OTO6182	ADVANCED TOPICS IN PHD THESIS II	E	4	0	0	0	5		
	OTO6113	THE USAGE OF ADVANCED MATERIALS IN VEHICLES	E	3	0	0	3	6	OTO6112	CONTROL SYSTEMS IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6		
	OTO6115	COMPUTATIONAL FLUID DYNAMICS METHODS OF VEHICLES	E	3	0	0	3	6	OTO6114	VEHICLE BRAKING SYSTEMS	E	3	0	0	3	6		
	OTO6117	MECHATRONICS IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6	OTO6116	SPECIAL TOPICS IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6		
	OTO6119	ADVANCED LEVEL PROGRAMMING IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6	OTO6118	EMISSION CONTROL AND MONITORING	E	3	0	0	3	6		
	OTO6121	THEORY of ELASTICITY for ENGINEERS	E	3	0	0	3	6	OTO6120	AUTOMOTIVE COMPOSITES AND SANDWICH STRUCTURES	E	3	0	0	3	6		
	OTO6123	FUEL INJECTION SYSTEMS	E	3	0	0	3	6	OTO6122	FUELL CELLS	E	3	0	0	3	6		
									OTO6124	DESIGNING OF ELECTRONIC CONTROL UNITS FOR VEHICLES	E	3	0	0	3	6		
									OTO6126	DAMAGE ANALYSIS OF VEHICLES	E	3	0	0	3	6		
									OTO6128	THEORY of FRACTURE MECHANICS and APPLICATIONS	E	3	0	0	3	6		
									OTO6130	THEORY of PLASTICITY and APPLICATIONS	E	3	0	0	3	6		
	Total Credits							12	30	Total Credits							11	30
STAGE THESIS	III. TERM / FALL								IV. TERM / SPRING									
	YET6177	PHD PROFICIENCY EXAMINATION	C	0	0	0	0	10	OTO6184	ADVANCED TOPICS IN PHD THESIS IV	C	4	0	0	0	5		
	OTO6183	ADVANCED TOPICS IN PHD THESIS III	C	4	0	0	0	5	OTO6194	PHD THESIS IV	C	0	1	0	0	25		
	OTO6193	PHD THESIS III	C	0	1	0	0	15										
	Total Credits							0	30	Total Credits							0	30
	V. TERM / FALL								VI. TERM / SPRING									
	OTO6185	ADVANCED TOPICS IN PHD THESIS V	C	4	0	0	0	5	OTO6186	ADVANCED TOPICS IN PHD THESIS VI	C	4	0	0	0	5		
	OTO6195	PHD THESIS V	C	0	1	0	0	25	OTO6196	PHD THESIS VI	C	0	1	0	0	25		
	Total Credits							0	30	Total Credits							0	30
	VII. TERM / FALL								VIII. TERM / SPRING									
OTO6187	ADVANCED TOPICS IN PHD THESIS VII	C	4	0	0	0	5	OTO6188	ADVANCED TOPICS IN PHD THESIS VIII	C	4	0	0	0	5			
OTO6197	PHD THESIS VII	C	0	1	0	0	25	OTO6198	PHD THESIS VIII	C	0	1	0	0	25			
Total Credits							0	30	Total Credits							0	30	

TOTAL CREDITS: 23 - TOTAL ECTS: 240



U LUDAĞ UNIVERSITY
INSTITUTE OF NATURAL SCIENCES
2017-2018 ACADEMIC YEAR COURSE PLAN

DEPARTMENT OF

AUTOMOTIVE ENGINEERING

DEPARTMENT / PROGRAM

Automotive Engineering / Integrated Doctoral Program

COURSE STAGE**I. TERM / FALL**

Code	Course Title	Type	T	U	L	Credit	ECTS
OTO6191	PHD THESIS I	C	0	1	0	0	1
OTO6181	ADVANCED TOPICS IN PHD THESIS I	E	4	0	0	0	5
	ELECTIVE COURSE	E	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
Total Credits						12	30

II. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
OTO6192	PHD THESIS II	C	0	1	0	0	1
OTO6182	ADVANCED TOPICS IN PHD THESIS II	E	4	0	0	0	5
OTO5102	NUMERICAL ANALYSIS AND OPTIMIZATION METHODS IN AUTOMOTIVE ENGINEERING	C	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
Total Credits						12	30

III. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
OTO6193	PHD THESIS III	C	0	1	0	0	1
OTO6183	ADVANCED TOPICS IN PHD THESIS III	C	4	0	0	0	5
OTO6101	AUTOMOTIVE DESIGN, MANUFACTURING AND PROJECT MANAGEMENT	C	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
Total Credits						12	30

IV. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
OTO6194	PHD THESIS IV	C	0	1	0	0	1
OTO6184	ADVANCED TOPICS IN PHD THESIS IV	C	4	0	0	0	5
FEN6000	RESEARCH TECHNIQUES and PUBLICATION ETHICS	C	2	0	0	2	2
OTO6172	SEMINAR	C	0	2	0	0	4
	ELECTIVE COURSE	E	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
	ELECTIVE COURSE	E	3	0	0	3	6
Total Credits						11	30

V. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
YET6177	PHD PROFICIENCY EXAMINATION	C	0	0	0	0	10
OTO6185	ADVANCED TOPICS IN PHD THESIS V	C	4	0	0	0	5
OTO6195	PHD THESIS V	C	0	1	0	0	15
Total Credits						0	30

VI. YARIYIL / BAHAR

Code	Course Title	Type	T	U	L	Credit	ECTS
OTO6186	ADVANCED TOPICS IN PHD THESIS VI	C	4	0	0	0	5
OTO6196	PHD THESIS VI	C	0	1	0	0	25
Total Credits						0	30

VII. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
OTO6187	ADVANCED TOPICS IN PHD THESIS VII	C	4	0	0	0	5
OTO6197	PHD THESIS VII	C	0	1	0	0	25
Total Credits						0	30

VIII. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
OTO6188	ADVANCED TOPICS IN PHD THESIS VIII	C	4	0	0	0	5
OTO6198	PHD THESIS VIII	C	0	1	0	0	25
Total Credits						0	30

IX. TERM / FALL

Code	Course Title	Type	T	U	L	Credit	ECTS
OTO6189	ADVANCED TOPICS IN PHD THESIS IX	C	4	0	0	0	5
OTO6199	PHD THESIS IX	C	0	1	0	0	25
Total Credits						0	30

X. TERM / SPRING

Code	Course Title	Type	T	U	L	Credit	ECTS
OTO6190	ADVANCED TOPICS IN PHD THESIS X	C	4	0	0	0	5
OTO6290	PHD THESIS X	C	0	1	0	0	25
Total Credits						0	30

TOTAL CREDITS:47 -TOTAL ECTS: 300

	I. TERM / ELECTIVE COURSES								II. TERM / ELECTIVE COURSES							
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS
COURSE STAGE	OTO5101	AUTOMOTIVE ENGINEERING	E	3	0	0	3	6	OTO5112	VEHICLE DYNAMICS	E	3	0	0	3	6
	OTO5111	VEHICLE DESIGN	E	3	0	0	3	6	OTO5114	ALTERNATIVE PROOULSION SYSTEMS	E	3	0	0	3	6
	OTO5115	AUTOMOTIVE MATERIALS	E	3	0	0	3	6	OTO5120	PRODUCTION AND ASSEMBLY TECHNOLOGIES	E	3	0	0	3	6
	OTO5117	MOTOR VEHICLES AND THEIR EVOLUTION	E	3	0	0	3	6	OTO5124	ENGINE DESIGN AND CONTROL FUNDAMENTALS	E	3	0	0	3	6
	OTO5119	AUTOMOTIVE TRANSMISSION DESIGN	E	3	0	0	3	6	OTO5128	FINITE ELEMENT APPLICATIONS IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6
	OTO5121	DEVELOPING FORMS AND DESIGNING THE BODY WORK	E	3	0	0	3	6	OTO5130	VEHICLE INTERIOR DESIGN	E	3	0	0	3	6
	OTO5123	ELECTRIC AND ELECTRONIC SYSTEMS FOR VEHICLES	E	3	0	0	3	6	OTO5134	AERODYNAMIC MODELLING FUNDAMENTALS	E	3	0	0	3	6
	OTO5127	INTERNAL COMBUSTION ENGINE DESIGN	E	3	0	0	3	6	OTO5136	ADVANCED TOPICS IN INTERNAL COMBUSTION ENGINES	E	3	0	0	3	6
	OTO5129	MIXTURE FORMATION IN INTERNAL COMBUSTION ENGINES	E	3	0	0	3	6	OTO5138	VEHICLE OUT EMISSIONS AND THEIR CONTROL	E	3	0	0	3	6
	OTO5131	INTERNAL COMBUSTION ENGINES	E	3	0	0	3	6	OTO5140	ADVANCED MANUFACTURING TECHNIQUES FOR VEHICLES	E	3	0	0	3	6
	OTO5133	APPLICATION OF INTERNAL COMBUSTION ENGINES ON VEHICLE	E	3	0	0	3	6	OTO5142	INTERFACE CIRCUITS IN AUTOMOTIVE ELECTRONICS	S	3	0	0	3	6
	OTO5135	VIBRATION AND NOISE IN VEHICLES	E	3	0	0	3	6	OTO5144	EMBEDDED CONTROL SYSTEMS IN VEHICLES	E	3	0	0	3	6
	OTO5137	FUNDAMENTALS OF FINITE ELEMENT ANALYSIS	E	3	0	0	3	6	OTO5146	INTERNAL COMBUSTION ENGINE TESTS	E	3	0	0	3	6
	OTO5139	NUMERICAL MODELING AND SIMULATION	E	3	0	0	3	6	OTO5148	TRIBOLOGICAL SYSTEMS IN AUTOMOTIVE	E	3	0	0	3	6
	OTO5141	VEHICLE HVAC SYSTEMS AND THERMAL COMFORT	E	3	0	0	3	6	OTO5150	FLUID CONTROL SYSTEMS AND APPLICATION IN VEHICLES	E	3	0	0	3	6
OTO5143	SENSORS AND ACTUATORS IN VEHICLES	E	3	0	0	3	6	OTO5152	VEHICLE SUSPENSION SYSTEMS DESIGN	E	3	0	0	3	6	
OTO5145	ON-BOARD DIAGNOSTIC SYSTEMS IN VEHICLES	E	3	0	0	3	6	OTO5154	COMPUTER AIDED SIMULATION IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6	
OTO5147	MODELLING OF ENGINEERING SYSTEMS IN AUTOMOTIVE	E	3	0	0	3	6									
OTO5149	USE OF POLYMERS IN VEHICLES	E	3	0	0	3	6									
OTO5151	VEHICLE DISCRETE-TIME CONTROL SYSTEMS	E	3	0	0	3	6									
OTO5153	ADVANCED STRENGTH OF MATERIALS	E	3	0	0	3	6									
OTO5155	FUEL INJECTION SYSTEMS	E	3	0	0	3	6									
COURSE STAGE	III. TERM / ELECTIVE COURSES								IV. TERM / ELECTIVE COURSES							
	OTO6111	VEHICLE CRASH ANALYSIS METHODS	E	3	0	0	3	6	OTO6112	CONTROL SYSTEMS IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6
	OTO6113	THE USAGE OF ADVANCED MATERIALS IN VEHICLES	E	3	0	0	3	6	OTO6114	VEHICLE BRAKING SYSTEMS	E	3	0	0	3	6
	OTO6115	COMPUTATIONAL FLUID DYNAMICS METHODS OF VEHICLES	E	3	0	0	3	6	OTO6116	SPECIAL TOPICS IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6
	OTO6117	MECHATRONICS IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6	OTO6118	EMISSION CONTROL AND MONITORING	E	3	0	0	3	6
	OTO6119	ADVANCED LEVEL PROGRAMMING IN AUTOMOTIVE ENGINEERING	E	3	0	0	3	6	OTO6120	AUTOMOTIVE COMPOSITES AND SANDWICH STRUCTURES	E	3	0	0	3	6
	OTO6121	THEORY of ELASTICITY for ENGINEERS	E	3	0	0	3	6	OTO6122	FUELL CELLS	E	3	0	0	3	6
	OTO6123	FUEL INJECTION SYSTEMS	E	3	0	0	3	6	OTO6124	DESIGNING OF ELECTRONIC CONTROL UNITS FOR VEHICLES	S	3	0	0	3	6
								OTO6126	DAMAGE ANALYSIS OF VEHICLES	S	3	0	0	3	6	
								OTO6128	THEORY of FRACTURE MECHANICS and APPLICATIONS	E	3	0	0	3	6	



**ULUDAĞ UNIVERSITY
INSTITUTE OF NATURAL SCIENCES
2017-2018 ACADEMIC YEAR COURSE PLAN**

DEPARTMENT OF AUTOMOTIVE ENGINEERING
DEPARTMENT / PROGRAM Automotive Engineering/ Master's Degree Program (Without Thesis)

COURSE STAGE	I. TERM / FALL								II. TERM / SPRING									
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS		
	OTO5001	VEHICLE DESIGN	C	3	0	0	3	7.5	OTO5002	VEHICLE DYNAMICS	C	3	0	0	3	7.5		
	OTO5003	MOTOR VEHICLES AND THEIR EVOLUTION	C	3	0	0	3	7.5	OTO5004	NUMERICAL MODELING AND SIMULATION	C	3	0	0	3	7.5		
	OTO5005	AUTOMOTIVE TRANSMISSION DESIGN	C	3	0	0	3	7.5	OTO5008	COMBUSTION ENGINE APPLICATION TO VEHICLE	C	3	0	0	3	7.5		
	OTO5007	PRODUCTION AND ASSEMBLY TECHNOLOGIES	C	3	0	0	3	7.5										
									OTO5010	FLUID POWER SYSTEMS FOR VEHICLES	E	3	0	0	3	7.5		
	Total Credits							12	30	Total Credits							12	30
	III. TERM / FALL								IV. TERM / SPRING									
	OTO5009	DEVELOPING FORMS AND DESIGNING THE BODY WORK	C	3	0	0	3	7.5	OTO5000	PROJECT	C	0	1	0		25		
	OTO5011	ELECTRIC AND ELECTRONIC SYSTEMS FOR VEHICLES	C	3	0	0	3	7.5	OTO5100	SEMINAR	C	0	0	0		5		
	OTO5031	INTERNAL COMBUSTION ENGINES	E	3	0	0	3	7,5										
	OTO5033	INTERIORS DESIGN	E	3	0	0	3	7,5										
	OTO5035	EMISSION CONTROL AND TECHN. EVOLUTION OF ENGINE	E	3	0	0	3	7,5										
	OTO5037	ALTERNATIVE PROPULSION SYSTEMS	E	3	0	0	3	7,5										
	OTO5039	TRANSPORT SYSTEMS AND TRAFFIC ENGINEERING	E	3	0	0	3	7,5										
	OTO5043	RUBBER AND TIRE TECHNOLOGY	E	3	0	0	3	7,5										
	OTO5045	INFORMATION SYSTEMS FOR VEHICLES	E	3	0	0	3	7,5										
	OTO5047	AUTOMOTIVE MATERIALS	E	3	0	0	3	7,5										
	Total Credits							12	30	Total Credits							0	30

TOTAL CREDITS:36 -TOTAL ECTS: 120