



ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2017-2018 EĞİTİM ÖĞRETİM YILI DERS PLANLARI

ANABİLİM DALI

OTOMOTİV MÜHENDİSLİĞİ

BİLİM DALI / PROGRAMI

Otomotiv Mühendisliği / Yüksek Lisans Programı

	I. YARIYIL / GÜZ								II. YARIYIL / BAHAR							
	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS
DERS AŞAMASI	OTO5191	YÜKSEK LİSANS TEZ DANIŞMANLIĞI I	Z	0	1	0	0	1	OTO5000	OTOMOTİV MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ	Z	2	0	0	2	2
									OTO5102	OTOMOTİV MÜHENDİSLİĞİNDE NUMERİK ANALİZ VE OPTİMİZASYON YÖNTEMLERİ	Z	3	0	0	3	6
									OTO5192	YÜKSEK LİSANS TEZ DANIŞMANLIĞI II	Z	0	1	0	0	1
									OTO5172	SEMİNER	Z	0	2	0	0	4
	OTO5181	YÜKSEK LİSANS UZMANLIK ALAN DERSİ I	S	4	0	0	0	5	OTO5182	YÜKSEK LİSANS UZMANLIK ALAN DERSİ II	S	4	0	0	0	5
	OTO5101	OTOMOTİV MÜHENDİSLİĞİ	S	3	0	0	3	6	OTO5112	TAŞIT DİNAMIĞI	S	3	0	0	3	6
	OTO5111	TAŞIT TASARIMI	S	3	0	0	3	6	OTO5114	ALTERNATİF TAHRİK SİSTEMLERİ	S	3	0	0	3	6
	OTO5115	OTOMOTİV MALZEMELERİ	S	3	0	0	3	6	OTO5120	ÜRETİM VE MONTAJ TEKNOLOJİLERİ	S	3	0	0	3	6
	OTO5117	MOTORLU ARAÇLAR VE GELİŞİMİ	S	3	0	0	3	6	OTO5124	MOTOR TASARIM VE KONTROL TEMELLERİ	S	3	0	0	3	6
	OTO5119	TAŞIT TRANSMİSYON SİSTEMLERİ TASARIMI	S	3	0	0	3	6	OTO5128	OTOMOTİV MÜHENDİSLİĞİNDE SONLU ELEMANLAR UYGULAMALARI	S	3	0	0	3	6
	OTO5121	GÖVDE TASARIM VE FORM GELİŞTİRME	S	3	0	0	3	6	OTO5130	TAŞIT İÇ TASARIMI	S	3	0	0	3	6
	OTO5123	TAŞITLARDA ELEKTRİK VE ELEKTRONİK SİSTEMLER	S	3	0	0	3	6	OTO5134	AERODİNAMİK MODELLEME ESASLARI	S	3	0	0	3	6
	OTO5127	İÇTEN YANMALI MOTORLARIN HESABI VE GELİŞTİRİLMESİ	S	3	0	0	3	6	OTO5136	İÇTEN YANMALI MOTORLARDA ÖZEL KONULAR	S	3	0	0	3	6
	OTO5129	MOTORLARDA KARIŞIM OLUŞUM TEKNİKLERİ	S	3	0	0	3	6	OTO5138	TAŞIT KAYNAKLI KIRLETİCİLER VE KONTROLÜ	S	3	0	0	3	6
	OTO5131	İÇTEN YANMALI MOTORLAR	S	3	0	0	3	6	OTO5140	TAŞITLARDA İLERİ ÜRETİM TEKNOLOJİLERİ	S	3	0	0	3	6
	OTO5133	İÇTEN YANMALI MOTORUN TAŞITA UYGULANMASI	S	3	0	0	3	6	OTO5142	OTOMOTİV ELEKTRONİĞİNDE ARA YÜZ DEVRELERİ	S	3	0	0	3	6
	OTO5135	TAŞITLARDA TİTREŞİM VE GÜRÜLTÜ	S	3	0	0	3	6	OTO5144	TAŞITLARDA GÖMÜLÜ KONTROL SİSTEMLERİ	S	3	0	0	3	6
	OTO5137	SONLU ELEMANLAR ANALİZİNİN ESASLARI	S	3	0	0	3	6	OTO5146	İÇTEN YANMALI MOTOR TESTLERİ	S	3	0	0	3	6
	OTO5139	SAYISAL MODELLEME VE BENZETİM	S	3	0	0	3	6	OTO5148	OTOMOTİVDE TRİBOLOJİK SİSTEMLER	S	3	0	0	3	6
	OTO5141	TAŞIT İKLİMLENDİRME SİSTEMLERİ VE ISIL KONFOR	S	3	0	0	3	6	OTO5150	OTOMOTİVDE AKIŞKAN DENETİM SİSTEMLERİ VE UYGULAMALARI	S	3	0	0	3	6
	OTO5143	TAŞITLARDA SENSÖR VE EYLEYİCİLER	S	3	0	0	3	6	OTO5152	TAŞIT SÜSPANSİYON SİSTEMLERİ	S	3	0	0	3	6
	OTO5145	TAŞITLARDA BÜTÜNLEŞİK TANI KOYMA SİSTEMLERİ	S	3	0	0	3	6	OTO5154	OTOMOTİV MÜHENDİSLİĞİNDE BİLGİSAYAR DESTEKLİ SİMÜLASYON	S	3	0	0	3	6
	OTO5147	OTOMOTİVDE MÜHENDİSLİK SİSTEMLERİNİN MODELLENMESİ	S	3	0	0	3	6								
	OTO5149	TAŞITLARDA POLİMERLERİN KULLANIMI	S	3	0	0	3	6								
	OTO5151	TAŞITLARDA AYRIK ZAMANLI DENETİM SİSTEMLERİ	S	3	0	0	3	6								

	OTO5153	İLERİ MUKAVEMET	S	3	0	0	3	6												
	Toplam Kredi							12	30	Toplam Kredi									11	30
TEZ AŞAMASI	III. YARIYIL / GÜZ								IV. YARIYIL / BAHAR											
	OTO5183	YÜKSEK LİSANS UZMANLIK ALAN DERSİ III	Z	4	0	0	0	5	OTO5184	YÜKSEK LİSANS UZMANLIK ALAN DERSİ IV	Z	4	0	0	0	5				
	OTO5193	YÜKSEK LİSANS TEZ DANIŞMANLIĞI III	Z	0	1	0	0	25	OTO5194	YÜKSEK LİSANS TEZ DANIŞMANLIĞI IV	Z	0	1	0	0	25				
	Toplam Kredi							0	30	Toplam Kredi									0	30
TOPLAM KREDİ: 23 - TOPLAM AKTS: 120																				

Not: Öğrenci isterse, danışmanın onayı ile her yarıyıl için **1 (bir)** seçmeli dersini alan dışından da alabilir.



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.

		Toplam Kredi		12	30			Toplam Kredi		11	30					
TEZ ASAMASI	III. YARIYIL / GÜZ						IV. YARIYIL / BAHAR									
	OTO5183	YÜKSEK LİSANS UZMANLIK ALAN DERSİ III	Z	4	0	0	0	5	OTO5184	YÜKSEK LİSANS UZMANLIK ALAN DERSİ IV	Z	4	0	0	0	5
	OTO5193	YÜKSEK LİSANS TEZ DANIŞMANLIĞI III	Z	0	1	0	0	25	OTO5194	YÜKSEK LİSANS TEZ DANIŞMANLIĞIIV	Z	0	1	0	0	25
	Toplam Kredi						0	30	Toplam Kredi						0	30
TOPLAM KREDİ: 23 - TOPLAM AKTS: 120																

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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 ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2017-2018 EĞİTİM ÖĞRETİM YILI DERS PLANLARI

ANABİLİM DALI

OTOMOTİV MÜHENDİSLİĞİ

BİLİM DALI / PROGRAMI

Otomotiv Mühendisliği / Doktora Programı

DERS AŞAMASI

I. YARIYIL / GÜZ								II. YARIYIL / BAHAR							
Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS
OTO6191	DOKTORA TEZ DANIŞMANLIĞI I	Z	0	1	0	0	1	FEN6000	ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ	Z	2	0	0	2	2
OTO6101	OTOMOTİV TASARIM, İMALAT VE PROJE YÖNETİMİ	Z	3	0	0	3	6	OTO6192	DOKTORA TEZ DANIŞMANLIĞI II	Z	0	1	0	0	1
OTO6181	DOKTORA UZMANLIK ALANI DERSİ I	S	4	0	0	0	5	OTO6172	SEMİNER	Z	0	2	0	0	4
OTO6111	TAŞITLARDA ÇARPMA ANALİZİ YÖNTEMLERİ	S	3	0	0	3	6	OTO6182	DOKTORA UZMANLIK ALANI DERSİ II	S	4	0	0	0	5
OTO6113	TAŞITLARDA İLERİ MALZEMELERİN KULLANIMI	S	3	0	0	3	6	OTO6112	OTOMOTİV MÜHENDİSLİĞİNDE KONTROL SİSTEMLERİ	S	3	0	0	3	6
OTO6115	TAŞITLARDA HESAPLAMALI AKIŞKANLAR DİNAMİĞİ YÖNTEMLERİ	S	3	0	0	3	6	OTO6114	TAŞIT FREN SİSTEMLERİ	S	3	0	0	3	6
OTO6117	OTOMOTİV MÜHENDİSLİĞİNDE MEKATRONİK	S	3	0	0	3	6	OTO6116	OTOMOTİV MÜHENDİSLİĞİNDE ÖZEL KONULAR	S	3	0	0	3	6
OTO6119	OTOMOTİV MÜHENDİSLİĞİNDE İLERİ DÜZEY PROGRAMLAMA	S	3	0	0	3	6	OTO6118	EMİSYON KONTROLÜ VE DENETİMİ	S	3	0	0	3	6
OTO6121	MÜHENDİSLER İÇİN ELASTİSİTE TEORİSİ	S	3	0	0	3	6	OTO6120	TAŞITLARDA KOMPOZİT VE SANDVIÇ YAPILAR	S	3	0	0	3	6
OTO6123	YAKIT ENJEKSİYON MEKANİZMALARI	S	3	0	0	3	6	OTO6122	YAKIT HÜCRELERİ	S	3	0	0	3	6
								OTO6124	TAŞITLARDA ELEKTRONİK KONTROL ÜNİTESİ TASARIMI	S	3	0	0	3	6
								OTO6126	TAŞITLARDA HASAR ANALİZİ	S	3	0	0	3	6
								OTO6128	MÜHENDİSLİK KIRILMA MEKANİĞİ TEORİSİ VE UYGULAMALARI	S	3	0	0	3	6
								OTO6130	PLASTİSİTE TEORİSİ VE UYGULAMALARI	S	3	0	0	3	6
Toplam Kredi						12	30	Toplam Kredi						11	30

TEZ AŞAMASI

III. YARIYIL / GÜZ								IV. YARIYIL / BAHAR							
YET6177	DOKTORA YETERLİK SINAVI	Z	0	0	0	0	10	OTO6184	DOKTORA UZMANLIK ALANI DERSİ IV	Z	4	0	0	0	5
OTO6183	DOKTORA UZMANLIK ALANI DERSİ III	Z	4	0	0	0	5	OTO6194	DOKTORA TEZ DANIŞMANLIĞIIV	Z	0	1	0	0	25
OTO6193	DOKTORA TEZ DANIŞMANLIĞIII	Z	0	1	0	0	15								
Toplam Kredi						0	30	Toplam Kredi						0	30
V. YARIYIL / GÜZ								VI. YARIYIL / BAHAR							
OTO6185	DOKTORA UZMANLIK ALANI DERSİ V	Z	4	0	0	0	5	OTO6186	DOKTORA UZMANLIK ALANI DERSİ VI	Z	4	0	0	0	5
OTO6195	DOKTORA TEZ DANIŞMANLIĞIV	Z	0	1	0	0	25	OTO6196	DOKTORA TEZ DANIŞMANLIĞIVI	Z	0	1	0	0	25
Toplam Kredi						0	30	Toplam Kredi						0	30
VII. YARIYIL / GÜZ								VIII. YARIYIL / BAHAR							
OTO6187	DOKTORA UZMANLIK ALANI DERSİ VII	Z	4	0	0	0	5	OTO6188	DOKTORA UZMANLIK ALANI DERSİ VIII	Z	4	0	0	0	5
OTO6197	DOKTORA TEZ DANIŞMANLIĞIVII	Z	0	1	0	0	25	OTO6198	DOKTORA TEZ DANIŞMANLIĞIVIII	Z	0	1	0	0	25
Toplam Kredi						0	30	Toplam Kredi						0	30

TOPLAM KREDİ: 23 -TOPLAM AKTS: 240



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		
									OTO6172	SEMINAR	C	0	2	0	0	4		
	OTO6181	ADVANCED TOPICS IN PHD THESIS I	E	4	0	0	0	5	OTO6182	ADVANCED TOPICS IN PHD THESIS II	E	4	0	0	0	5		
	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	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
STAGE THESIS	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
STAGE THESIS	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



ULUDAĞ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ
2017-2018 EĞİTİM ÖĞRETİM YILI DERS PLANLARI

ANABİLİM DALI	OTOMOTİV MÜHENDİSLİĞİ
BİLİM DALI / PROGRAMI	Otomotiv Mühendisliği / Birleştirilmiş Doktora Programı

DERS AŞAMASI	I. YARIYIL / GÜZ								II. YARIYIL / BAHAR								
	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	
DERS AŞAMASI	OTO6191	DOKTORA TEZ DANIŞMANLIĞI I	Z	0	1	0	0	1	OTO6192	DOKTORA TEZ DANIŞMANLIĞI II	Z	0	1	0	0	1	
	OTO6181	DOKTORA UZMANLIK ALANI DERSİ I	S	4	0	0	0	5	OTO5102	OTOMOTİV MÜHENDİSLİĞİNDE NUMERİK ANALİZ VE OPTİMİZASYON YÖNTEMLERİ	Z	3	0	0	3	6	
		SEÇMELİ DERS	S	3	0	0	3	6	OTO6182	DOKTORA UZMANLIK ALANI DERSİ II	S	4	0	0	0	5	
		SEÇMELİ DERS	S	3	0	0	3	6		SEÇMELİ DERS	S	3	0	0	3	6	
		SEÇMELİ DERS	S	3	0	0	3	6		SEÇMELİ DERS	S	3	0	0	3	6	
		SEÇMELİ DERS	S	3	0	0	3	6		SEÇMELİ DERS	S	3	0	0	3	6	
		SEÇMELİ DERS	S	3	0	0	3	6		SEÇMELİ DERS	S	3	0	0	3	6	
		Toplam Kredi				12	30			Toplam Kredi				12	30		
TEZ AŞAMASI	III. YARIYIL / GÜZ								IV. YARIYIL / BAHAR								
	OTO6193	DOKTORA TEZ DANIŞMANLIĞI III	Z	0	1	0	0	1	OTO6194	DOKTORA TEZ DANIŞMANLIĞI IV	Z	0	1	0	0	1	
	OTO6183	DOKTORA UZMANLIK ALANI DERSİ III	Z	4	0	0	0	5	OTO6184	DOKTORA UZMANLIK ALANI DERSİ IV	Z	4	0	0	0	5	
	OTO6101	OTOMOTİV TASARIM, İMALAT VE PROJE YÖNETİMİ	Z	3	0	0	3	6	FEN6000	ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ	Z	2	0	0	2	2	
		SEÇMELİ DERS	S	3	0	0	3	6	OTO6172	SEMİNER	Z	0	2	0	0	4	
		SEÇMELİ DERS	S	3	0	0	3	6		SEÇMELİ DERS	S	3	0	0	3	6	
		SEÇMELİ DERS	S	3	0	0	3	6		SEÇMELİ DERS	S	3	0	0	3	6	
		SEÇMELİ DERS	S	3	0	0	3	6		SEÇMELİ DERS	S	3	0	0	3	6	
			Toplam Kredi				12	30			Toplam Kredi				11	30	
		V. YARIYIL / GÜZ								VI. YARIYIL / BAHAR							
	YET6177	DOKTORA YETERLİK SINAVI	Z	0	0	0	0	10	OTO6186	DOKTORA UZMANLIK ALANI DERSİ VI	Z	4	0	0	0	5	
	OTO6185	DOKTORA UZMANLIK ALANI DERSİ V	Z	4	0	0	0	5	OTO6196	DOKTORA TEZ DANIŞMANLIĞI VI	Z	0	1	0	0	25	
	OTO6195	DOKTORA TEZ DANIŞMANLIĞI V	Z	0	1	0	0	15									
			Toplam Kredi				0	30			Toplam Kredi				0	30	
	VII. YARIYIL / GÜZ								VIII. YARIYIL / BAHAR								
OTO6187	DOKTORA UZMANLIK ALANI DERSİ VII	Z	4	0	0	0	5	OTO6188	DOKTORA UZMANLIK ALANI DERSİ VIII	Z	4	0	0	0	5		
OTO6197	DOKTORA TEZ DANIŞMANLIĞI VII	Z	0	1	0	0	25	OTO6198	DOKTORA TEZ DANIŞMANLIĞI VIII	Z	0	1	0	0	25		
		Toplam Kredi				0	30			Toplam Kredi				0	30		
	IX. YARIYIL / GÜZ								X. YARIYIL / BAHAR								
Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS		
OTO6189	DOKTORA UZMANLIK ALANI DERSİ IX	Z	4	0	0	0	5	OTO6190	DOKTORA UZMANLIK ALANI DERSİ X	Z	4	0	0	0	5		
OTO6199	DOKTORA TEZ DANIŞMANLIĞI IX	Z	0	1	0	0	25	OTO6290	DOKTORA TEZ DANIŞMANLIĞI X	Z	0	1	0	0	25		
		Toplam Kredi				0	30			Toplam Kredi				0	30		

TOPLAM KREDİ: 47 -TOPLAM AKTS: 300

	I.YARIYIL SEÇMELİ DERSLER								II. YARIYIL SEÇMELİ DERSLER							
	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS	Kodu	Dersin Adı	Türü	T	U	L	Kredi	AKTS
DERS AŞAMASI	OTO5101	OTOMOTİV MÜHENDİSLİĞİ	S	3	0	0	3	6	OTO5112	TAŞIT DİNAMİĞİ	S	3	0	0	3	6
	OTO5111	TAŞIT TASARIMI	S	3	0	0	3	6	OTO5114	ALTERNATİF TAHRİK SİSTEMLERİ	S	3	0	0	3	6
	OTO5115	OTOMOTİV MALZEMELERİ	S	3	0	0	3	6	OTO5120	ÜRETİM VE MONTAJ TEKNOLOJİLERİ	S	3	0	0	3	6
	OTO5117	MOTORLU ARAÇLAR VE GELİŞİMİ	S	3	0	0	3	6	OTO5124	MOTOR TASARIM VE KONTROL TEMELLERİ	S	3	0	0	3	6
	OTO5119	TAŞIT TRANSMİSYON SİSTEMLERİ TASARIMI	S	3	0	0	3	6	OTO5128	OTOMOTİV MÜHENDİSLİĞİNDE SONLU ELEMANLAR UYGULAMALARI	S	3	0	0	3	6
	OTO5121	GÖVDE TASARIM VE FORM GELİŞTİRME	S	3	0	0	3	6	OTO5130	TAŞIT İÇ TASARIMI	S	3	0	0	3	6
	OTO5123	TAŞITLARDA ELEKTRİK VE ELEKTRONİK SİSTEMLER	S	3	0	0	3	6	OTO5134	AERODİNAMİK MODELLEME ESASLARI	S	3	0	0	3	6
	OTO5127	İÇTEN YANMALI MOTORLARIN HESABI VE GELİŞTİRİLMESİ	S	3	0	0	3	6	OTO5136	İÇTEN YANMALI MOTORLARDA ÖZEL KONULAR	S	3	0	0	3	6
	OTO5129	MOTORLARDA KARIŞIM OLUŞUM TEKNİKLERİ	S	3	0	0	3	6	OTO5138	TAŞIT KAYNAKLI KIRLETİCİLER VE KONTROLÜ	S	3	0	0	3	6
	OTO5131	İÇTEN YANMALI MOTORLAR	S	3	0	0	3	6	OTO5140	TAŞITLARDA İLERİ ÜRETİM TEKNOLOJİLERİ	S	3	0	0	3	6
	OTO5133	İÇTEN YANMALI MOTORUN TAŞITA UYGULANMASI	S	3	0	0	3	6	OTO5142	OTOMOTİV ELEKTRONİĞİNDE ARA YÜZ DEVRELERİ	S	3	0	0	3	6
	OTO5135	TAŞITLARDA TİTREŞİM VE GÜRÜLTÜ	S	3	0	0	3	6	OTO5144	TAŞITLARDA GÖMÜLÜ KONTROL SİSTEMLERİ	S	3	0	0	3	6
	OTO5137	SONLU ELEMANLAR ANALİZİNİN ESASLARI	S	3	0	0	3	6	OTO5146	İÇTEN YANMALI MOTOR TESTLERİ	S	3	0	0	3	6
	OTO5139	SAYISAL MODELLEME VE BENZETİM	S	3	0	0	3	6	OTO5148	OTOMOTİVDE TRİBOLOJİK SİSTEMLER	S	3	0	0	3	6
	OTO5141	TAŞIT İKLİMLENDİRME SİSTEMLERİ VE ISIL KONFOR	S	3	0	0	3	6	OTO5150	OTOMOTİVDE AKIŞKAN DENETİM SİSTEMLERİ VE UYGULAMALARI	S	3	0	0	3	6
	OTO5143	TAŞITLARDA SENSÖR VE EYLEYİCİLER	S	3	0	0	3	6	OTO5152	TAŞIT SÜSPANSİYON SİSTEMLERİ	S	3	0	0	3	6
	OTO5145	TAŞITLARDA BÜTÜNLEŞİK TANI KOYMA SİSTEMLERİ	S	3	0	0	3	6	OTO5154	OTOMOTİV MÜHENDİSLİĞİNDE BİLGİSAYAR DESTEKLİ SİMÜLASYON	S	3	0	0	3	6
	OTO5147	OTOMOTİVDE MÜHENDİSLİK SİSTEMLERİNİN MODELLENMESİ	S	3	0	0	3	6								
OTO5149	TAŞITLARDA POLİMERLERİN KULLANIMI	S	3	0	0	3	6									
OTO5151	TAŞITLARDA AYRIK ZAMANLI DENETİM SİSTEMLERİ	S	3	0	0	3	6									
OTO5153	İLERİ MUKAVEMET	S	3	0	0	3	6									
OTO5155	YAKIT ENJEKSİYON MEKANİZMALARI	S	3	0	0	3	6									
DERS AŞAMASI	III. YARIYIL SEÇMELİ DERSLER								IV. YARIYIL SEÇMELİ DERSLER							
	OTO6111	TAŞITLARDA ÇARPMA ANALİZİ YÖNTEMLERİ	S	3	0	0	3	6	OTO6112	OTOMOTİV MÜHENDİSLİĞİNDE KONTROL SİSTEMLERİ	S	3	0	0	3	6
	OTO6113	TAŞITLARDA İLERİ MALZEMELERİN KULLANIMI	S	3	0	0	3	6	OTO6114	TAŞIT FREN SİSTEMLERİ	S	3	0	0	3	6
	OTO6115	TAŞITLARDA HESAPLAMALI AKIŞKANLAR DİNAMİĞİ YÖNTEMLERİ	S	3	0	0	3	6	OTO6116	OTOMOTİV MÜHENDİSLİĞİNDE ÖZEL KONULAR	S	3	0	0	3	6
	OTO6117	OTOMOTİV MÜHENDİSLİĞİNDE MEKATRONİK	S	3	0	0	3	6	OTO6118	EMİSYON KONTROLÜ VE DENETİMİ	S	3	0	0	3	6
	OTO6119	OTOMOTİV MÜHENDİSLİĞİNDE İLERİ DÜZEY PROGRAMLAMA	S	3	0	0	3	6	OTO6120	TAŞITLARDA KOMPOZİT VE SANDVİÇ YAPILAR	S	3	0	0	3	6
	OTO6121	MÜHENDİSLER İÇİN ELASTİSİTE TEORİSİ	S	3	0	0	3	6	OTO6122	YAKIT HÜCRELERİ	S	3	0	0	3	6
	OTO6123	YAKIT ENJEKSİYON MEKANİZMALARI	S	3	0	0	3	6	OTO6124	TAŞITLARDA ELEKTRONİK KONTROL ÜNİTESİ TASARIMI	S	3	0	0	3	6
									OTO6126	TAŞITLARDA HASAR ANALİZİ	S	3	0	0	3	6
									OTO6128	MÜHENDİSLİK KIRILMA MEKANİĞİ TEORİSİ VE UYGULAMALARI	S	3	0	0	3	6



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								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	OTO6192	PHD THESIS II	C	0	1	0	0	1		
	OTO6181	ADVANCED TOPICS IN PHD THESIS I	E	4	0	0	0	5	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		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	Total Credits							12	30
	III. TERM / FALL								IV. TERM / SPRING									
	OTO6193	PHD THESIS III	C	0	1	0	0	1	OTO6194	PHD THESIS IV	C	0	1	0	0	1		
	OTO6183	ADVANCED TOPICS IN PHD THESIS III	C	4	0	0	0	5	OTO6184	ADVANCED TOPICS IN PHD THESIS IV	C	4	0	0	0	5		
	OTO6101	AUTOMOTIVE DESIGN, MANUFACTURING AND PROJECT MANAGEMENT	C	3	0	0	3	6	FEN6000	RESEARCH TECHNIQUES and PUBLICATION ETHICS	C	2	0	0	2	2		
		ELECTIVE COURSE	E	3	0	0	3	6	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		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	Total Credits							11	30	
STAGE THESIS	V. TERM / FALL								VI. YARIYIL / BAHAR									
	YET6177	PHD PROFICIENCY EXAMINATION	C	0	0	0	0	10	OTO6186	ADVANCED TOPICS IN PHD THESIS VI	C	4	0	0	0	5		
	OTO6185	ADVANCED TOPICS IN PHD THESIS V	C	4	0	0	0	5	OTO6196	PHD THESIS VI	C	0	1	0	0	25		
	OTO6195	PHD THESIS V	C	0	1	0	0	15										
	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
	IX. TERM / FALL								X. TERM / SPRING									
OTO6189	ADVANCED TOPICS IN PHD THESIS IX	C	4	0	0	0	5	OTO6190	ADVANCED TOPICS IN PHD THESIS X	C	4	0	0	0	5			
OTO6199	PHD THESIS IX	C	0	1	0	0	25	OTO6290	PHD THESIS X	C	0	1	0	0	25			
Total Credits							0	30	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 OTOMOTİV MÜHENDİSLİĞİ
DEPARTMENT / PROGRAM Otomotiv Mühendisliği / Yüksek Lisans Programı (Tezsiz)

COURSE STAGE	I. YARIYIL / GÜZ							II. YARIYIL / BAHAR								
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS
	OTO5001	TAŞIT TASARIM	Z	3	0	0	3	7.5	OTO5002	TAŞIT DİNAMIĞI	Z	3	0	0	3	7.5
	OTO5003	MOTORLU ARAÇLAR ve GELİŞİMİ	Z	3	0	0	3	7.5	OTO5004	SAYISAL MODELLEME ve BENZETİM	Z	3	0	0	3	7.5
	OTO5005	TAŞIT TRANSMİSYON SİSTEMLERİ TASARIMI	Z	3	0	0	3	7.5	OTO5008	İÇTEN YANMALI MOTORLARIN TAŞITLARDA UYGULANMASI	Z	3	0	0	3	7.5
	OTO5007	ÜRETİM ve MONTAJ TEKNOLOJİLERİ	Z	3	0	0	3	7.5								
									OTO5010	TAŞITLARDA AKIŞKAN GÜÇ SİSTEMLERİ	S	3	0	0	3	7.5
	Toplam Kredi						12	30	Toplam Kredi						12	30
COURSE STAGE	III. YARIYIL / GÜZ							IV. YARIYIL / BAHAR								
	Code	Course Title	Type	T	U	L	Credit	ECTS	Code	Course Title	Type	T	U	L	Credit	ECTS
	OTO5009	GÖVDE TASARIM ve FORM GELİŞTİRME	Z	3	0	0	3	7.5	OTO5000	PROJE	Z	0	1	0		25
	OTO5011	TAŞITLARDA ELEKTRİK ve ELEKTRONİK SİSTEMLER	Z	3	0	0	3	7.5	OTO5100	SEMİNER	Z	0	0	0		5
	OTO5031	İÇTEN YANMALI MOTORLAR	S	3	0	0	3	7.5								
	OTO5033	TAŞIT İÇ TASARIMI	S	3	0	0	3	7.5								
	OTO5035	EMİSYON KONTROLU ve MOTORUN TEKNOLOJİK GELİŞİMİ	S	3	0	0	3	7.5								
	OTO5037	ALTERNATİF TAHRİK SİSTEMLERİ	S	3	0	0	3	7.5								
	OTO5039	TRANSPORT SİSTEMLERİ ve TRAFİK MÜHENDİSLİĞİ	S	3	0	0	3	7.5								
	OTO5043	LASTİK ve TEKERLEK TEKNOLOJİSİ	S	3	0	0	3	7.5								
	OTO5045	TAŞIT BİLGİ SİSTEMLERİ	S	3	0	0	3	7.5								
	OTO5047	OTOMOTİV MALZEMELERİ	S	3	0	0	3	7.5								
	Toplam Kredi						12	30	Toplam Kredi						0	30

TOPLAM KREDİ: 36 - TOPLAM AKTS: 120



**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