

T.C.
BALIKESİR ÜNİVERSİTESİ
MÜHENDİSLİK-MİMARLIK FAKÜLTESİ
MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ (I. ve II. ÖĞRETİM)
2015-2016 EĞİTİM-ÖĞRETİM YILI DERS PLANI

1. SINIF													
1. YARIYIL							2. YARIYIL						
KOD	DERSİN ADI	Kategori	T	U	K	ECTS	KOD	DERSİN ADI	Kategori	T	U	K	ECTS
MAT1101	MATEMATİK I	Z	3	1	3,5	5	MAT1202	MATEMATİK II	Z	3	1	3,5	4
FIZ1101	FİZİK I	Z	3	0	3	4	FIZ1201	FİZİK II	Z	3	0	3	4
KIM1101	GENEL KİMYA	Z	3	0	3	4	MMM1230	STATİK	Z	3	0	3	4
TRS1101	TEKNİK RESİM I	Z	2	2	3	5	BIL1202	ALGORİTMA ve PRGRAMLAMAYA GİRİŞ	Z	2	1	2,5	3
MKI 1120	MAKİNE MÜHENDİSLİĞİNE GİRİŞ	Z	2	0	2	2	TRS1201	TEKNİK RESİM II	Z	3	2	4	5
MKI1104	ATÖLYE İŞLEMLERİ	Z	2	2	3	3	MKI1221	ÖLÇME TEKNİĞİ	Z	2	1	2,5	3
	Toplam		15	5	17,5	23		Toplam		16	5	18,5	23
AIT1101	ATATÜRK İLKELERİ ve İNKİLAP TARİHİ I	Z	2	0	2	2	AIT1202	ATATÜRK İLKELERİ ve İNKİLAP TARİHİ II	Z	2	0	2	2
TDI1101	TÜRK DİLİ I	Z	2	0	2	2	TDI1202	TÜRK DİLİ II	Z	2	0	2	2
YDI1100	YABANCI DİL I	Z	2	0	2	3	YDI1200	YABANCI DİL II	Z	2	0	2	3
	Toplam		21	5	23,5	30		Toplam		22	5	24,5	30
2. SINIF													
3.YARIYIL							4. YARIYIL						
KOD	DERSİN ADI	Kategori	T	U	K	ECTS	KOD	DERSİN ADI	Kategori	T	U	K	ECTS
MTB2131	YÜKSEK MATEMATİK	Z	3	0	3	4	MTB 2242	MÜHENDİSLİK MATEMATİĞİ	Z	3	0	3	4
MKI 2131	MALZEME I	Z	3	0	3	4	MKI 2231	MALZEME II	Z	2	0	2	3
MMM2131	MUKAVEMET I	Z	3	0	3	5	MMM2231	MUKAVEMET II	Z	3	0	3	4
MMM2130	DİNAMİK	Z	3	0	3	6	MTR 2230	TERMODİNAMİK II	Z	3	0	3	4
MTR 2140	TERMODİNAMİK I	Z	3	0	3	4	MTR 2231	AKIŞKANLAR MEKANİĞİ I	Z	3	0	3	3
MTB2120	SAYISAL ANALİZ	Z	3	0	3	4	MMD2220	MEKANİZMA TEKNİĞİ	Z	2	0	2	4
	TEKNİK SEÇ. DERS. I (1 ders seçilir)	S	2	0	2	3	MTB 2230	BİLG. DESTEKLİ MOD. ve ÇİZİM	Z	2	0	2	3
								YAZ STAJI	Z	0	0	0	2
								TEKNİK SEÇ. DERS. II (1ders seçilir)	S	2	0	2	3
	Toplam		20	0	20	30		Toplam		20	0	20	30
3. SINIF													
5. YARIYIL							6. YARIYIL						
KOD	DERSİN ADI	Kategori	T	U	K	ECTS	KOD	DERSİN ADI	Kategori	T	U	K	ECTS
MTR3120	AKIŞKANLAR MEKANİĞİ II	Z	2	0	2	4	MTR3230	ISI TRANSFERİ	Z	3	0	3	4
MKI3140	MAKİNE ELEMANLARI I	Z	4	0	4	6	MKI3231	MAKİNE ELEMANLARI II	Z	3	1	3,5	5
MMD3140	OTOMATİK KONTROL	Z	3	0	3	4	MEN3230	MOTORLAR I	Z	3	0	3	4
MKI3125	KAYNAK TEKNİĞİ	Z	2	0	2	3	MMD3231	MAKİNE DİNAMİĞİ	Z	2	1	2,5	3
MKI3145	TALAŞLI İMALAT	Z	3	0	3	4	MKI3233	METALLERE PLASTİK ŞEKİL VERME	Z	2	0	2	3
MMM3120	SONLU ELEMANLAR ANALİZİNE GİRİŞ	Z	2	0	2	3	MUY3204	MAKİNE LABORATUVARI I	Z	0	4	2	3
	TEKNİK SEÇ.DERS. III (2 ders seçilir)	S	4	0	4	6	MPR3205	MAKİNE TASARIM I	Z	2	0	2	3
								TEKNİK SEÇ. DERS. IV (1 ders seçilir)	S	2	0	2	3
								YAZ STAJI	Z	0	0	0	2
	Toplam		20	0	20	30		Toplam		17	6	20	30
4. SINIF													
7. YARIYIL							8. YARIYIL						
KOD	DERSİN ADI	Kategori	T	U	K	ECTS	KOD	DERSİN ADI	Kategori	T	U	K	ECTS
MEN4122	ELEKTROTEKNİK	Z	2	0	2	4	MTR4230	AKIM MAKİNALARI	Z	2	0	2	2
MKI4120	MODELLEME VE ANALİZ	Z	2	0	2	4	MBÇ4202	BİTİRME ÇALIŞMASI	Z	0	2	1	2
MUY4104	MAKİNE LABORATUVARI II	Z	0	4	2	2		TEKNİK SEÇ.DERS. VI (7 ders seçilir)	S	14	0	14	21
MPR4105	MAKİNE TASARIM II	Z	2	0	2	2		SOSYAL SEÇ.DERS. II (1 ders seçilir)	S	2	0	2	3
	TEKNİK SEÇ.DERS. V (5 ders seçilir)	S	10	0	10	15		YAZ STAJI	Z	0	0	0	2
	SOSYAL SEÇ.DERS. I (1 ders seçilir)	S	2	0	2	3							
	Toplam		18	4	20	30		Toplam		18	2	19	30

Z: Zorunlu S:Seçmeli T:Teorik U:Uygulama K:Kredi
MTB: Temel Bilimler MMD: Makine Teo. ve Din. MMM: Mekanik MKI: Konst. ve İmalat
MTR: Termodinamik MEN: Enerji MUY: Laboratuar MPR: Proje MÇB: Bitirme Çalışması

T.C.
BALIKESİR ÜNİVERSİTESİ
MÜHENDİSLİK-MİMARLIK FAKÜLTESİ
MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ (1. ve II. ÖĞRETİM) 2015-2016 EĞİTİM-ÖĞRETİM YILI DERS PLANI

2. SINIF SEÇMELİ DERSLER													
KOD	3. yarıyıl TEKNİK SEÇMELİ DERSLER (1 ders seçilir)	Kategori	T	U	K	ECTS	KOD	4. yarıyıl TEKNİKSEÇMELİ DERSLER (1 ders seçilir)	Kategori	T	U	K	ECTS
MMT2101	TEKNİK YABANCI DİL I	S	2	0	2	3	MMT2233	TASARIMIN TEMEL İLKELERİ	S	2	0	2	3
MMT2102	BİLG.DEST.MÜH.UYGULAMALARI (MATLAB)	S	2	0	2	3	MMT2201	TEKNİK YABANCI DİL II	S	2	0	2	3
MTR2104	ÇEVRE TEKNİĞİ	S	2	0	2	3	MKI2204	KOROZYON TEKNİĞİ	S	2	0	2	3
3. SINIF SEÇMELİ DERSLER													
KOD	5. yarıyıl TEKNİK SEÇMELİ DERSLER (2 ders seçilir)	Kategori	T	U	K	ECTS	KOD	6. yarıyıl TEKNİK SEÇMELİ DERSLER (1 ders seçilir)	Kategori	T	U	K	ECTS
MTR3121	SIHHİ TESİSAT	S	2	0	2	3	MTR3223	YALITIM TEKNİĞİ	S	2	0	2	3
MEN3123	YAKIT ve YANMA	S	2	0	2	3	MKI3221	ISIL İŞLEMLER	S	2	0	2	3
MKI3121	KONSTRÜKSİYON	S	2	0	2	3	MKI3232	MODERN TALAŞLI İMALAT	S	2	0	2	3
MKI3124	PLASTİK MALZEMELER	S	2	0	2	3	MKI3224	KALIP TASARIMI	S	2	0	2	3
MKI3126	DÖKÜM TEKNİĞİ	S	2	0	2	3	MMM3222	KOMPOZİT MALZEMELER ve MEKANİĞİ	S	2	0	2	3
MMM3121	ELASTİSİTE TEORİSİNE GİRİŞ	S	2	0	2	3	MMM3224	BİLGİSAYAR .DES.TASARIM (CAD)	S	2	0	2	3
							MMM3226	KIRILMA MEKANİĞİNE GİRİŞ	S	2	0	2	3
4. SINIF SEÇMELİ DERSLER													
KOD	7. yarıyıl TEKNİK SEÇMELİ DERSLER (5 ders seçilir)	Kategori	T	U	K	ECTS	KOD	8. yarıyıl TEKNİKSEÇMELİ DERSLER (7 ders seçilir)	Kategori	T	U	K	ECTS
MEN4120	MOTORLAR II	S	2	0	2	3	MEN4220	GAZ TÜRBİNLERİ	S	2	0	2	3
MEN4121	HAVALANDIRMA TEKNİĞİ	S	2	0	2	3	MEN4221	KLİMA	S	2	0	2	3
MEN4123	ISITMA TEKNİĞİ	S	2	0	2	3	MEN4222	ENERJİ YÖNETİMİ	S	2	0	2	3
MTR4121	BUHAR KAZANLARI	S	2	0	2	3	MEN4226	ENERJİ SANTRALLERİ	S	2	0	2	3
MTR4122	BUHAR TÜRBİNLERİ	S	2	0	2	3	MTR4220	ÇEŞİTLİ SOĞUTMA SİST.	S	2	0	2	3
MTR4124	SOĞUTMA TEKNİĞİ	S	2	0	2	3	MTR4223	GAZ TESİSATI (DOĞAL GAZ)	S	2	0	2	3
MTR4125	ISI EŞANJÖRLERİ	S	2	0	2	3	MTR4222	GÜNEŞ ENERJİSİ SİSTEMLERİ	S	2	0	2	3
MKI4102	UYGULAMALI İSTATİSTİK	S	2	0	2	3	MKI4222	KALİTE KONTROL	S	2	0	2	3
MKI4121	BİLGİSAYAR DESTEKLİ ÜRETİM	S	2	0	2	3	MKI4225	DEMİR DIŞI METALLER	S	2	0	2	3
MKI4122	HİDROLİK VE PNOMATİK	S	2	0	2	3	MKI4226	KAYNAK METALURJİSİ	S	2	0	2	3
MKI4123	ÜRETİM PLANLAMA	S	2	0	2	3	MKI4228	ELASTİK ENERJİ TEORİSİ	S	2	0	2	3
MKI4124	GÜÇ İLETİM TEKNİĞİ	S	2	0	2	3	MKI4229	TARIM MAKİNELERİ TASARIMI	S	2	0	2	3
MKI4126	ESNEK İMALAT SİSTEMLERİ	S	2	0	2	3	MKI4230	BİLGİSAYAR TÜMLEŞİK ÜRETİM	S	2	0	2	3
MKI4130	FABRİKA ORGANİZASYONU	S	2	0	2	3	MKI4231	ERGONOMİ	S	2	0	2	3
MKI4132	TRANSPORT TEKNİĞİ	S	2	0	2	3	MKI4233	TRANSPORT MAKİNELERİ	S	2	0	0	3
MMD4120	MEKANİK TİTREŞİMLER	S	2	0	2	3	MKI4234	TAKIM TEZGAH KONSTRÜKSİYONU	S	2	0	0	3
MMD4121	MOTORLU TAŞITLAR	S	2	0	2	3	MKI4236	MÜHENDİSLİK EKONOMİSİ	S	2	0	0	3
MMM4101	MEKANİKTE BİLGİSAYAR UYGULAMALARI	S	2	0	2	3	MMD4220	TAŞIT KONSTRÜKSİYONU	S	2	0	2	3
MMM4102	MÜHENDİSLİKTE AR-GE HAZIRLAMA TEKNİĞİ	S	2	0	2	3	MMD4235	ENDÜSTRİYEL OTOMASYON	S	2	0	2	3
							MMM4202	SEKTÖR ANALİZİ	S	2	0	2	3
							MMM4204	BİLG.DESTK.KOMPOZİT MALZEME ANALİZİ	S	2	0	2	3
							MMM4237	BİLG.DESTK.MEKANİK SİSTEMLER	S	2	0	2	3
4.SINIF ÜNİVERSİTE SOSYAL SEÇMELİ DERSLER													
KOD	4. sınıf 1. yarıyıl SOSYAL SEÇMELİ DERSLER	Kategori	T	U	K	ECTS	KOD	4. sınıf 2. yarıyıl SOSYAL SEÇMELİ DERSLER	Kategori	T	U	K	ECTS
MMS4102	GİRİŞİMCİLİK I	S	2	0	2	3	MMS4201	İŞ GÜVENLİĞİ VE İŞÇİ SAĞLIĞI	S	2	0	2	3
							MMS4202	GİRİŞİMCİLİK II	S	2	0	2	3

Republic of Turkey
BALIKESİR UNIVERSITY
FACULTY OF ENGINEERING - ARCHITECTURE
DEPARTMENT OF MECHANICAL ENGINEERING
2015-2016 ACADEMIC YEAR UNDERGRADUATE CURRICULUM

1. YEARS													
1. ST SEMESTER							2. ND SEMESTER						
CODE	COURSE NAME	Category	T	U	K	ECTS	CODE	COURSE NAME	Category	T	U	K	ECTS
MAT1101	Mathematics I	Z	3	1	3,5	5	MAT1202	Mathematics II	Z	3	1	3,5	4
FIZ1101	Physics I	Z	3	0	3	4	FIZ1202	Physics II	Z	3	0	3	4
KIM1101	General Chemistry	Z	3	0	3	4	MMM1230	Statics	Z	3	0	3	4
TRS1101	Techn. Drawing I	Z	2	2	3	5	BLI1202	Introduction to Algorithms and Algorithms	Z	2	1	2,5	3
MKI 1120	Introduction to Mechanical Engineering	Z	2	0	2	2	MKI1232	Techn. Drawing II	Z	3	2	4	5
MKI1104	Workshop Procedures	Z	2	2	3	3	MKI1221	Measurement Tecnique	Z	2	1	2,5	3
Total			15	5	17,5	23	Total			16	5	18,5	23
AIT1101	Atatürk Principles and Turkish Revolition History I	Z	2	0	2	2	AIT1202	Atatürk Principles and Turkish Revolition History II	Z	2	0	2	2
TDI1101	Turkish Language I	Z	2	0	2	2	TDI1202	Turkish Language II	Z	2	0	2	2
	Foreign Language I	Z	2	0	2	3		Foreign Language II	Z	2	0	2	3
Grand Total			21	5	23,5	30	Grand Total			22	5	24,5	30
2. YEARS													
3. RD SEMESTER							4. TH SEMESTER						
CODE	COURSE NAME	Category	T	U	K	ECTS	CODE	COURSE NAME	Category	T	U	K	ECTS
MTB2131	Advanced Mathematics	Z	2	0	2	4	MTB 2241	Engineering Mathematics	Z	3	0	3	4
MKI 2131	Materials Science I	Z	3	0	3	4	MKI 2230	Materials Science II	Z	2	0	2	3
MMM2131	Strength of the Materials I	Z	3	0	3	5	MMM2230	Strength of the Materials II	Z	3	0	3	4
MMM2130	Dynamics	Z	4	0	4	6	MTR 2230	Thermodynamics II	Z	3	0	3	4
MTR 2140	Thermodynamics I	Z	3	0	3	4	MTR 2231	Fluid Mechanics I	Z	3	0	3	3
MTB2120	Numerical Analysis	Z	2	0	2	4	MMD2220	Mechanism Tecnique	Z	2	0	2	4
	Technical Selective Courses I (1 course selected)	S	2	0	2	3	MTB2220	Computer Aided Modeling and Drafting	Z	2	0	2	3
								Summer Internship	Z	0	0	0	2
								Technical Selective Courses II (1 course selected)	S	2	0	2	3
Total			19	0	19	30	Total			20	0	20	30
2. YEARS COURSES SELECTED													
3. Semester Technical Courses Selected							4. Semester Technical Courses Selected						
MMT2101	Technical Foreign Language I	S	2	0	2	3	MMT2233	The Basic Principles of Design	S	2	0	2	3
MMT2102	Computer Aided Engineering Applications (MATLAB)	S	2	0	2	3	MMT2201	Technical Foreign Language II	S	2	0	2	3
MTR2104	Enviromental Techniques	S	2	0	2	3	MMT2204	Corrosion Technique	S	2	0	2	3
3. YEARS													
5. TH SEMESTER							6. TH SEMESTER						
CODE	COURSE NAME	Category	T	U	K	ECTS	CODE	COURSE NAME	Category	T	U	K	ECTS
MTR3120	Fluid Mechanics II	Z	2	0	2	4	MTR3230	Heat Transfer	Z	3	0	3	4
MKI3140	Machine Elements I	Z	4	0	4	6	MKI3231	Machine Elements II	Z	3	1	3,5	5
MMD3140	Automatic Control	Z	3	0	3	4	MEN3230	Internal Combustion Engines I	Z	3	0	3	4
MKI3125	Welding Technology	Z	2	0	2	3	MMD3231	Machine Dynamic	Z	2	1	2,5	3
MKI3145	MachineTools	Z	3	0	3	4	MKI3233	Plastic deformation processing of Metals	Z	2	0	2	3
MKI3120	Introduction to Finite Element Method	Z	2	0	2	3	MUY3205	Lab Machine I	Z	0	4	2	3
	Selected Course I (2 courses selected)	S	4	0	4	6	MPR3205	Machine Design I	Z	2	0	2	3
								Selected Course II (1 course selected)	S	2	0	2	3
								Summer Internship	Z	0	0	0	2
Total			20	0	20	30	Total			17	6	20	30
3. YEARS COURSES SELECTED													
5. Semester Technical Courses Selected							6. Semester Technical Courses Selected						
MTR3121	Sanitary Installation	S	2	0	2	3	MTR3223	Insulation Techniques	S	2	0	2	3
MMM3121	Introduction to Theory of Elasticity	S	2	0	2	3	MKI3221	Heat Treatments	S	2	0	2	3
MEN3123	Fuels and Combustion	S	2	0	2	3	MMM3224	Computer Aided Design (CAD)	S	2	0	2	3
MKI3121	Construction	S	2	0	2	3	MMM3222	Mechanics of Composite Materials	S	2	0	2	3
MKI3124	Plastic Materials	S	2	0	2	3	MKI3232	Modern Machining	S	2	0	2	3
MKI3126	Casting Techniques	S	2	0	2	3	MKI3224	Die Design with Catia	S	2	0	2	3
							MMM3226	Introduction to Fracture Mechanics	S	2	0	2	3
4. YEARS													
7. TH SEMESTER							8. TH SEMESTER						
CODE	COURSE NAME	Category	T	U	K	ECTS	CODE	COURSE NAME	Category	T	U	K	ECTS
MEN4122	Electrotechnics	Z	2	0	2	4	MTR4230	Flow Machines	Z	2	0	2	2
MKI4120	Modeling and Analysis	Z	2	0	2	4	MBC4202	Senior Project	Z	0	2	1	2
MUY4105	Lab Machine II	Z	0	4	2	2	Course Selected IV (7 Course selected)						
MPR4105	Machine Design II	Z	2	0	2	2	Social Course Selected II (1 Course selected)						
	Course Selected III (5 Course selected)	S	10	0	10	15		Summer Internship	Z	0	0	0	2
	Social Course Selected I (1 Course selected)	S	2	0	2	3							
Total			18	4	20	30	Total			18	2	19	30
4. YEARS COURSES SELECTED													
7. Semester Technical Courses Selected							8. Semester Technical Courses Selected						
MEN4120	Internal Combustion Engines II	S	2	0	2	3	MEN4220	Gas Turbins	S	2	0	2	3
MEN4121	Ventilation Systems	S	2	0	2	3	MEN4221	Air conditioning Techniques	S	2	0	2	3
MEN4123	Heating Systems	S	2	0	2	3	MEN4222	Energy Economy	S	2	0	2	3
MTR4121	Steam Boiler	S	2	0	2	3	MEN4226	Power Plants Technolgy	S	2	0	2	3
MTR4122	Steam Turbines	S	2	0	2	3	MTR4220	Various Cooling Systems	S	2	0	2	3
MTR4124	Cooling Techniques	S	2	0	2	3	MTR4222	Solar Energy Systems	S	2	0	2	3
MTR4125	Heat Exchangers	S	2	0	2	3	MTR4223	Natural Gas Systems	S	2	0	2	3
MKI4102	Applied Statistics	S	2	0	2	3	MKI4222	Quality Control	S	2	0	2	3
MKI4121	Computer Aided Manufacturing	S	2	0	2	3	MKI4225	Non-Ferrous Metals	S	2	0	2	3
MKI4122	Hydraulic and Pneumatics	S	2	0	2	3	MKI4226	Metallurgy of Welding	S	2	0	2	3
MKI4123	Production Planning	S	2	0	2	3	MKI4228	Elastic Energy Theory	S	2	0	2	3
MKI4124	Power Transmission Techniques	S	2	0	2	3	MKI4229	Design of Agriculture Machines	S	2	0	2	3
MKI4126	Flexible Manufacturing Systems	S	2	0	2	3	MKI4230	Computer Integrated Manufacturing	S	2	0	2	3
MKI4130	Factory Organization	S	2	0	2	3	MKI4231	Ergonomics	S	2	0	2	3
MKI4132	Transport Technique	S	2	0	2	3	MKI4233	Transport Machines	S	2	0	2	3
MMD4120	Mechanical Vibrations	S	2	0	2	3	MKI4234	Machine Tool Constructions	S	2	0	2	3
MMD4121	Engine Vehicles	S	2	0	2	3	MKI4236	Engineering Economy	S	2	0	2	3
MMM4101	Computer Applications in Mechanics	S	2	0	2	3	MMD4220	Vehicle Construction	S	2	0	0	3
MMM4102	R&D Preparation Techniques in Engineering	S	2	0	2	3	MMD4235	Industrial Automation	S	2	0	0	3
							MMM4202	Sector Analysis	S	2	0	2	3
							MMM4204	Computer Aided Analysis of Composite Materials	S	2	0	2	3
							MMM4237	Computer Aided Mechanical Systems	S	2	0	2	3
4. YEARS UNIVERSITY SOCIAL COURSES SELECTED													
4. Years 1.St Semester Social Courses Selected							4. Years 2nd Semester Social Courses Selected						
MMS4102	Entrepreneurship I	S	2	0	2	3	MMS4201	Occupational Safety and Healty	S	2	0	2	3
		S	2	0	2	3	MMS4102	Entrepreneurship II	S	2	0	2	3
									S	2	0	2	3

Z: Compulsory S:Elective T:Theory U:Application K:Credit

MTB: Basic Science MMD:Mechanic theory and Dynamics. MMM: Mechanics MKI: Construction and Manufacturing

MTR: Thermodynamics MEN:Energy MUY: Laboratory MPR:Project MÇB: Senior Project