

T.C.  
BALIKESİR ÜNİVERSİTESİ  
MÜHENDİSLİK-MİMARLIK FAKÜLTESİ  
MAKİNA MÜHENDİSLİĞİ BÖLÜMÜ (I. ve II. ÖĞRETİM)  
2013-2014 EĞİTİM-ÖĞRETİM YILI DERS PLANI

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						
FİZ1101	FİZİK-I	Z	3	0	3	4	FİZ1202	FİZİK-II	Z	3	0	3	4						
KİM1101	GENEL KİMYA	Z	3	0	3	4	MM1230	STATİK	Z	3	0	3	4						
TRS1101	TEKNİK RESİM-I-	Z	2	2	3	5	BIL1202	ALGORİTMA VE PROGRAMLAMAYA GİRİŞ	Z	2	1	2,5	3						
MKI 1120	MAKİNE MÜHENDİSLİĞİNE GİRİŞ	Z	2	0	2	2	MKI1232	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						
	<b>Toplam</b>		<b>15</b>	<b>5</b>	<b>17,5</b>	<b>23</b>		<b>Toplam</b>		<b>16</b>	<b>5</b>	<b>16,5</b>	<b>23</b>						
AİT1101	ATATÜRK İLKELERİ ve İNKILAP TARİHİ-I	Z	2	0	2	2	AİT1202	ATATÜRK İLKELERİ ve İNKILAP TARİHİ-II	Z	2	0	2	2						
TDI1101	TÜRK DİL-I	Z	2	0	2	2	TDI202	TÜRK DİL-II	Z	2	0	2	2						
	YABANCI DİL-I	Z	2	0	2	3		YABANCI DİL-II	Z	2	0	2	3						
	<b>Toplam</b>		<b>21</b>	<b>5</b>	<b>23,5</b>	<b>30</b>		<b>Toplam</b>		<b>22</b>	<b>5</b>	<b>24,5</b>	<b>30</b>						
2. SINIF										3. 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	2	0	2	4	MTB 2241	MÜHENDİSLİK MATEMATİĞİ	Z	3	0	3	4						
MKI 2131	MALZEME-I	Z	3	0	3	4	MKI 2230	MALZEME-II	Z	2	0	2	3						
MMM2131	MUKAVEMET-I	Z	3	0	3	5	MMM2230	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	Z	3	0	3	3						
MTB2120	SAYISAL ANALİZ	Z	3	0	3	4	MMD2220	MEKANİZMA TEKNİĞİ	Z	2	0	2	4						
	TEKNİK SEÇMELİ DERSLER-I (1 ders seçilir)	S	2	0	2	3	MTB 2220	BİLG. DESTEKLİ MODELLEME ve ÇİZİM	Z	2	0	2	3						
								YAZ STAJI	Z	0	0	0	2						
								TEKNİK SEÇMELİ DERSLER-II- (1 ders seçilir)	S	2	0	2	3						
	<b>Toplam</b>		<b>19</b>	<b>0</b>	<b>19</b>	<b>30</b>		<b>Toplam</b>		<b>20</b>	<b>0</b>	<b>20</b>	<b>30</b>						
2.SINIF TEKNİK SEÇMELİ DERSLER-I-										2.SINIF TEKNİK SEÇMELİ DERSLER-II-									
MMT2101	TEKNİK YABANCI DİL-I-	S	2	0	2	3	MMT2233	TASARIMIN TEMEL İLKELERİ	S	2	0	2	3						
MMT2102	BİLG.DESTK. MÜHENDİSLİK UYGULAMALARI	S	2	0	2	3	MMT2201	TEKNİK YABANCI DİL-II-	S	2	0	2	3						
MMT2103	İÇAT VE PATENT HAKKI	S	2	0	2	3	MMT2232	ERGONOMİ	S	2	0	2	3						
3. SINIF										4. 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	İSİ 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	MUY3205	MAKİNA LABORATUVARI-I	Z	0	4	2	3						
	SEÇMELİ DERS-I- (2 ders seçilir)	S	4	0	4	6	MPR3205	MAKİNA TASARIM-I	Z	2	0	2	3						
								SEÇMELİ DERS-II-(1 ders seçilir)	S	2	0	2	3						
								YAZ STAJI	Z	0	0	0	2						
	<b>Toplam</b>		<b>20</b>	<b>0</b>	<b>20</b>	<b>30</b>		<b>Toplam</b>		<b>17</b>	<b>6</b>	<b>20</b>	<b>30</b>						
3. SINIF SEÇMELİ DERSLER										4. SINIF SEÇMELİ DERSLER									
5. yarıyıl MESLEKİ SEÇMELİ DERSLER										6. yarıyıl MESLEKİ SEÇMELİ DERSLER									
MTR3121	SIHHİ TESİSAT	S	2	0	2	3	MTR3223	YALITIM TEKNİĞİ	S	2	0	2	3						
MTR3122	ÇEVRE TEKNİĞİ	S	2	0	2	3	MKI3221	İSİL İŞLEMLER	S	2	0	2	3						
MEN3123	YAKIT VE YANMA	S	2	0	2	3	MMM3223	BİLGİSAYAR .DES.TAS.(CAD)	S	2	0	2	3						
MKI3121	KONSTRÜKSİYON	S	2	0	2	3	MMM3122	KOMPOZİT MALZEMELER VE MEKANİĞİ	S	2	0	2	3						
MKI3124	PLASTİK MALZEMELER	S	2	0	2	3	MKI3232	MODERN TALAŞLI İMALAT	S	2	0	2	3						
MKI3126	DÖKÜM TEKNİĞİ	S	2	0	2	3	MKI3224	KALIP TASARIMI	S	2	0	2	3						
4. SINIF										5. 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	MBÇ4202	BİTİRME ÇALIŞMASI	Z	0	2	1	1						
MKI4120	MODELLEME VE ANALİZ	Z	2	0	2	4		SOSYAL SEÇMELİ DERS -II- (1 Ders seçilir)	S	2	0	2	3						
MUY4105	MAKİNA LABORATUVAR-II	Z	0	4	2	2		SEÇMELİ DERS-IV- (8 ders seçilir)	S	16	0	16	24						
MPR4105	MAKİNE TASARIM-II	Z	2	0	2	2		YAZ STAJI	Z	0	0	0	2						
	SOSYAL SEÇMELİ DERS-I- (1 ders seçilir)	S	2	0	2	3													
	SEÇMELİ DERS -III-(5 ders seçilir)	S	10	0	10	15													
	<b>Toplam</b>		<b>18</b>	<b>4</b>	<b>20</b>	<b>30</b>		<b>Toplam</b>		<b>18</b>	<b>2</b>	<b>19</b>	<b>30</b>						
4. SINIF SEÇMELİ DERSLER										5. SINIF SEÇMELİ DERSLER									
7. yarıyıl MESLEKİ SEÇMELİ DERSLER										8. yarıyıl MESLEKİ SEÇMELİ DERSLER									
MEN4120	MOTORLAR-II	S	2	0	2	3	MEN4220	GAZ TÜRBİNLERİ	S	2	0	2	3						
MTR4121	BUHAR KAZANLARI	S	2	0	2	3	MEN4221	KLİMA	S	2	0	2	3						
MTR4122	BUHAR TÜRBİNLERİ	S	2	0	2	3	MEN4222	ENERJİ EKONOMİSİ	S	2	0	2	3						
MEN4120	İSİTMA TEKNİĞİ	S	2	0	2	3	MEN4226	ENERJİ SANTRALLERİ	S	2	0	2	3						
MTR4124	SOĞUTMA TEKNİĞİ	S	2	0	2	3	MTR4220	ÇEŞİTLİ SOĞUTMA SİST.	S	2	0	2	3						
MEN4121	HAVALANDIRMA TEKNİĞİ	S	2	0	2	3	MTR4222	GÜNEŞ ENERJİSİ SİSTEMLERİ	S	2	0	2	3						
MTR3220	İSİ EŞANJÖRLERİ	S	2	0	2	3	MTR4224	GAZ TESİSATI	S	2	0	2	3						
MKI4121	BİLGİSAYAR DESTEKLİ ÜRETİM	S	2	0	2	3	MTR4230	AKIM MAKİNALARI	S	2	0	2	3						
MKI4122	HİDROLİK VE PnöMATİK	S	2	0	2	3	MMD4220	TAŞIT KONSTRÜKSİYONU	S	2	0	2	3						
MKI4123	ÜRETİM PLANLAMA	S	2	0	2	3	MKI4221	KOROZYON TEKNİĞİ	S	2	0	2	3						
MKI4124	GÜÇ İLETİM TEKNİĞİ	S	2	0	2	3	MKI4222	KALİTE KONTROL	S	2	0	2	3						
MMD4120	MEKANİK TİTREŞİMLER	S	2	0	2	3	MKI4225	DEMİR DIŞI METALLER	S	2	0	2	3						
MMD4121	MOTORLU TAŞITLAR	S	2	0	2	3	MKI4226	KAYNAK METALURJİSİ	S	2	0	2	3						
MKI4126	ESNEK İMALAT SİSTEMLERİ	S	2	0	2	3	MKI4230	FABRİKA ORGANİZASYONU	S	2	0	2	3						
MKI4132	TRANSPORT TEKNİĞİ	S	2	0	2	3	MKI4228	ELASTİK ENERJİ TEORİSİ	S	2	0	2	3						
MMD4134	ROBOTİK-I-	S	2	0	2	3	MKI4230	BİLGİSAYAR TÜMLEŞİK ÜRETİM	S	2	0	2	3						
MKI4102	UYGULAMALI İSTATİSTİK	S	2	0	2	3	MKI4233	TRANSPORT MAKİNELERİ	S	2	0	2	3						
MMM4104	BİLG.DESTK.KOMPOZİT MALZEME ANALİZİ	S	2	0	2	3	MEN4222	YENİLENEBİLİR ENERJİ KAYNAKLARI	S	2	0	2	3						
							MMD4234	ROBOTİK-2-	S	2	0	0	3						
							MMD4235	ENDÜSTRİYEL OTOMASYON	S	2	0	0	3						
							MKI4234	TAKİM TEZGAH KONSTRÜKSİYONU	S	2	0	0	3						
							MMM4237	BİLG.DESTK.MEKANİK SİSTEMLER	S	2	0	0	3						
							MKI4236	MÜHENDİSLİK EKONOMİSİ	S	2	0	2	3						
								4. sınıf 2. yarıyıl SOSYAL SEÇMELİ DERSLER											
4.SINIF UNİVERSİTE - SOSYAL SEÇMELİ DERSLER										5. SINIF UNİVERSİTE - SOSYAL SEÇMELİ DERSLER									
MMS4101	İNSAN KAYNAKLARI	S	2	0	2	3	MMS4201	İŞ GÜVENLİĞİ VE İŞÇİ SAĞLIĞI	S	2	0	2	3						
MMS4102	FOTOĞRAFÇILIK	S	2	0	2	3	MMS4202												
MMS4103	İŞ HUKUKU	S	2	0	2	3	MMS4203	MÜHENDİSLİK ETİĞİ ve ETKİN İLETİŞİM	S	2	0	2	3						

Republic of Turkey  
BALIKESİR UNIVERSITY  
FACULTY OF ENGINEERING - ARCHITECTURE  
DEPARTMENT OF MECHANICAL ENGINEERING  
2012-2013 ACADEMIC YEAR UNDERGRADUATE CURRICULUM

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
FLZ1101	Physics-I	Z	3	0	3	4	FLZ1202	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	BIL1202	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 Technique	Z	2	1	2,5	3
	<b>Total</b>		<b>15</b>	<b>5</b>	<b>17,5</b>	<b>23</b>		<b>Total</b>		<b>16</b>	<b>5</b>	<b>18,5</b>	<b>23</b>
AIT1101	Atatürk Principles and Turkish Revolution History-I-	Z	2	0	2	2	AIT1202	Atatürk Principles and Turkish Revolution 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
	<b>Grand Total</b>		<b>21</b>	<b>5</b>	<b>23,5</b>	<b>30</b>		<b>Grand Total</b>		<b>22</b>	<b>5</b>	<b>24,5</b>	<b>30</b>
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 Technique	Z	2	0	2	4
	Technical Selective Courses-I- (1 course selected)	S	2	0	2	3	MTB 2220	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
	<b>Total</b>		<b>19</b>	<b>0</b>	<b>19</b>	<b>30</b>		<b>Total</b>		<b>20</b>	<b>0</b>	<b>20</b>	<b>30</b>
2.YEAR Technical Courses Selected-I-													
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	S	2	0	2	3	MMT2201	Technical Foreign Language-II-	S	2	0	2	3
MMT2103	Entrepreneurship and Patent Rights	S	2	0	2	3	MMT2232	Ergonomics	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
	<b>Selected Course-I- (2 courses selected)</b>	S	4	0	4	6	MPR3205	Machine Design-I-	Z	2	0	2	3
								<b>Selected Course-II- (1 course selected)</b>	S	2	0	2	3
								Summer Internship	Z	0	0	0	2
	<b>Total</b>		<b>20</b>	<b>0</b>	<b>20</b>	<b>30</b>		<b>Total</b>		<b>17</b>	<b>6</b>	<b>20</b>	<b>30</b>
3. YEARS COURSES SELECTED													
5.Semester Courses Selected						6.Semester Courses Selected							
CODE		Category	T	U	K	ECTS	CODE		Category	T	U	K	ECTS
MTR3121	Sanitary Installation	S	2	0	2	3	MTR3223	Instulation Techniques	S	2	0	2	3
MTR3122	Environmental Techniques	S	2	0	2	3	MKI3221	Heat Treatments	S	2	0	2	3
MEN3123	Fuels and Combustion	S	2	0	2	3	MMM3223	Computer Aided Design (CAD)	S	2	0	2	3
MKI3121	Construction	S	2	0	2	3	MMM3122	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
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	MBÇ4202	Senior Project	Z	0	2	1	1
MKI4120	Modeling and Analysis	Z	2	0	2	4		<b>Social Course Selected -II- (1 Course selected)</b>	S	2	0	2	3
MUY4105	Lab Machine-II-	Z	0	4	2	2		<b>Course Selected -IV-(8 Course selected)</b>	S	16	0	16	24
MPR4105	Machine Design-II-	Z	2	0	2	2		Summer Internship	Z	0	0	0	2
	<b>Social Course Selected -I- (1 Course selected)</b>	S	2	0	2	3							
	<b>Course Selected -III-(5 Course selected)</b>	S	10	0	10	15							
	<b>Total</b>		<b>18</b>	<b>4</b>	<b>20</b>	<b>30</b>		<b>Total</b>		<b>18</b>	<b>2</b>	<b>19</b>	<b>30</b>
4. YEARS COURSES SELECTED													
7. Semester Courses Selected						8. Semester Courses Selected							
CODE		Category	T	U	K	ECTS	CODE		Category	T	U	K	ECTS
MEN4120	Internal Combustion Engines-II-	S	2	0	2	3	MEN4220	Gas Turbines	S	2	0	2	3
MTR4121	Steam Boiler	S	2	0	2	3	MEN4221	Air conditioning Techniques	S	2	0	2	3
MTR4122	Steam Turbines	S	2	0	2	3	MEN4222	Energy Economy	S	2	0	2	3
MEN4120	Heating Systems	S	2	0	2	3	MEN4226	Power Plants Technology	S	2	0	2	3
MTR4124	Cooling Techniques	S	2	0	2	3	MTR4220	Various Cooling Systems	S	2	0	2	3
MEN4121	Ventilation Systems	S	2	0	2	3	MTR4222	Solar Energy Systems	S	2	0	2	3
MTR3220	Heat exchangers	S	2	0	2	3	MTR4224	Natural Gas Systems	S	2	0	2	3
MKI4121	Computer Aided Manufacturing	S	2	0	2	3	MTR4230	Flow Machines	S	2	0	2	3
MKI4122	Hydraulic and Pneumatics	S	2	0	2	3	MMD4220	Vehicle Construction	S	2	0	2	3
MKI4123	Production Planning	S	2	0	2	3	MKI4221	Corrosion Technique	S	2	0	2	3
MKI4124	Power Transmission Techniques	S	2	0	2	3	MKI4222	Quality Control	S	2	0	2	3
MMD4120	Mechanical Vibrations	S	2	0	2	3	MKI4225	Non-Ferrous Metals	S	2	0	2	3
MMD4121	Engine Vehicles	S	2	0	2	3	MKI4226	Metallurgy of Welding	S	2	0	2	3
MKI4126	Flexible Manufacturing Systems	S	2	0	2	3	MKI4230	Factory Organization	S	2	0	2	3
MKI4132	Transport Technique	S	2	0	2	3	MKI4228	Elastic Energy Theory	S	2	0	2	3
MMD4134	Robotics-I-	S	2	0	2	3	MKI4230	Computer Integrated Manufacturing	S	2	0	2	3
MKI4102	Applied Statistics	S	2	0	2	3	MKI4233	Transport machines	S	2	0	2	3
							MEN4222	Renewable Energy Sources	S	2	0	2	3
							MMD4234	Robotics-II-	S	2	0	0	3
							MMD4235	Industrial Automation	S	2	0	0	3
							MKI4234	Machine Tool Constructions	S	2	0	0	3
							MKI4236	Engineering Economy	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							
CODE		Category	T	U	K	ECTS	CODE		Category	T	U	K	ECTS
MMS4101	Human Resources	S	2	0	2	3	MMS4201	Occupational Safety and Healthy	S	2	0	2	3
MMS4102	Photography	S	2	0	2	3	MMS4202		S	2	0	2	3
MMS4103	Labor Law	S	2	0	2	3	MMS4203	Engineering Ethics and Effective Communication	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