

T.C.
BALIKESİR ÜNİVERSİTESİ
MÜHENDİSLİK FAKÜLTESİ
MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ
2025-2026 EĞİTİM-ÖĞRETİM YILI LİSANS DERS PLANI

1. SINIF

1. YARIYIL

KOD	DERSİN ADI	Kategori	T	U	L	K	ECTS
MAT1101	MATEMATİK I	Z	3	1	0	3,5	5
FIZ1101	FİZİK I	Z	3	0	0	3	4
FIZ1102	FİZİK I LAB	Z	0	0	2	1	1
KIM1101	GENEL KİMYA	Z	3	0	0	3	4
KIM1102	GENEL KİMYA LAB	Z	0	0	2	1	1
TRS1101	TEKNİK RESİM	Z	2	2	0	3	4
MAK1101	MAKİNE MÜHENDİSLİĞİNE GİRİŞ	Z	2	0	0	2	2
MAK1102	LINEER CEBİR	Z	3	0	0	3	3
	Toplam		16	3	4	19,5	24
AIT1101	ATATÜRK İLKELERİ ve İNKILAP TARİHİ I	Z	2	0	0	2	2
TDI1101	TÜRK DİLİ I	Z	2	0	0	2	2
YDI1102	YABANCI DİL I	Z	2	0	0	2	2
	Toplam		22	3	8	25,5	30

2. YARIYIL

KOD	DERSİN ADI	Kategori	T	U	L	K	ECTS
MAT1202	MATEMATİK II	Z	3	1	0	3,5	5
FIZ1201	FİZİK II	Z	3	0	0	3	4
FIZ1202	FİZİK II LAB	Z	0	0	2	1	1
MAK1230	STATİK	Z	3	0	0	3	3
BIL1202	ALGORITMA ve PROGRAMLAMAYA GİRİŞ	Z	2	1	0	2,5	3
MAK1201	BİLG. DESTEKLİ TEKNİK RESİM	Z	2	2	0	3	3
KRY1201	KARİYER PLANLAMA	Z	1	0	0	1	2
IST1202	İSTATİSTİK	Z	2	1	0	2,5	3
	Toplam		16	6	2	19,5	24
AIT1201	ATATÜRK İLKELERİ ve İNKILAP TARİHİ II	Z	2	0	0	2	2
TDI1201	TÜRK DİLİ II	Z	2	0	0	2	2
YDI1202	YABANCI DİL II	Z	2	0	0	2	2
	Toplam		22	4	2	25,5	30

2. SINIF

3.YARIYIL

KOD	DERSİN ADI	Kategori	T	U	L	K	ECTS
MAK2101	DİFERANSİYEL DENKLEMLER	Z	3	1	0	3,5	4
MAK2102	MALZEME I	Z	3	0	0	3	4
MAK2103	MUKAVEMET I	Z	3	0	0	3	4
MAK2104	DİNAMİK	Z	3	0	0	3	4
MAK2105	TERMODİNAMİK I	Z	3	0	0	3	4
MAK2106	SAYISAL ANALİZ	Z	3	0	0	3	4
MAK2107	TEKNİK İNGİLİZCE I	Z	3	0	0	3	3
MAK2108	ÖLÇME TEKNİĞİ	Z	2	1	0	2,5	3
	Toplam		23	2	0	24	30

4. YARIYIL

KOD	DERSİN ADI	Kategori	T	U	L	K	ECTS
MAK2201	MÜHENDİSLİK MATEMATİĞİ	Z	3	0	0	3	3
MAK2202	MALZEME II	Z	2	0	0	2	3
MAK2203	MUKAVEMET II	Z	3	0	0	3	4
MAK2204	TERMODİNAMİK II	Z	3	0	0	3	4
MAK2205	AKIŞKANLAR MEKANİĞİ I	Z	3	0	0	3	3
MAK2206	MEKANİZMA TEKNİĞİ	Z	2	0	0	2	2
MAK2207	TEKNİK İNGİLİZCE II	Z	3	0	0	3	4
MAK2208	BİLG. DESTEKLİ MOD. ve ÇİZİM	Z	2	0	0	2	2
	TEKNİK SEÇ. DERS. I (1ders seçilir)	S	2	0	0	2	3
STJ1101	YAZ STAJI	Z	0	0	0	0	2
	Toplam		23	0	0	23	30

3. SINIF

5. YARIYIL

KOD	DERSİN ADI	Kategori	T	U	L	K	ECTS
ISG3101	İŞ SAĞLIĞI VE GÜVENLİĞİ I	Z	2	0	0	2	2
MAK3101	AKIŞKANLAR MEKANİĞİ II	Z	3	0	0	3	4
MAK3102	MAKİNE ELEMANLARI I	Z	3	0	0	3	4
MAK3103	OTOMATİK KONTROL	Z	3	1	0	3,5	4
MAK3104	İMALAT YÖNTEMLERİ I	Z	3	0	0	3	4
MAK3105	SONLU ELEMANLAR ANALİZİNE GİRİŞ	Z	2	0	0	2	3
MAK3106	ELEKTROTEKNİK	Z	2	0	0	2	3
	TEKNİK SEÇ.DERS. II (2 ders seçilir)	S	4	0	0	4	6
	Toplam		22	1	0	22,5	30

6. YARIYIL

KOD	DERSİN ADI	Kategori	T	U	L	K	ECTS
ISG3201	İŞ SAĞLIĞI VE GÜVENLİĞİ II	Z	2	0	0	2	2
MAK3201	ISI TRANSFERİ	Z	4	0	0	4	4
MAK3202	MAKİNE ELEMANLARI II	Z	3	0	0	3	4
MAK3203	MOTORLAR I	Z	3	0	0	3	4
MAK3204	MAKİNE DİNAMİĞİ	Z	3	0	0	3	4
MAK3205	İMALAT YÖNTEMLERİ II	Z	3	0	0	3	4
MAK3206	MAKİNE LABORATUVARI I	Z	0	0	2	1	2
	TEKNİK SEÇ. DERS. III (1 ders seçilir)	S	2	0	0	2	3
STJ1201	YAZ STAJI	Z	0	0	0	0	3
	Toplam		20	0	2	21	30

4. SINIF

7. YARIYIL

KOD	DERSİN ADI	Kategori	T	U	L	K	ECTS
MAK4199	MAKİNE LABORATUVARI II	Z	0	0	2	1	2
MAK4198	MAKİNE MÜHENDİSLİĞİ TASARIMI I	Z	2	0	0	2	2
	TEKNİK SEÇ.DERS IV (5 ders seçilir)	S	15	0	0	15	20
	SOSYAL SEÇMELİ DERS (1 ders seçilir)	S	2	0	0	2	3
	Üniversite Seçmeli Ders I (USD I) (1 ders seçilir)	S	2	0	0	2	3
	Toplam		21	0	2	22	30

8. YARIYIL

KOD	DERSİN ADI	Kategori	T	U	L	K	ECTS
GRUP 1	MAK4298 - MAKİNE MÜHENDİSLİĞİ TASARIMI II	Z	2	2	0	3	8
	TEKNİK SEÇ. DERS V (4 ders seçilir)	S	12	0	0	12	16
	SOSYAL SEÇMELİ DERS II (1 ders seçilir)	S	2	0	0	2	3
	Üniversite Seçmeli Ders II (USD II)(1 ders seçilir)	S	2	0	0	2	3
GRUP 2 IME4201	İŞLETMEDE MESLEKİ EĞİTİM	S	5	28	0	19	30
	Toplam					19	30

Z: Zorunlu S:Seçmeli T:Teorik U:Uygulama L: Laboratuvar K:Kredi

T.C.
BALIKESİR ÜNİVERSİTESİ
MÜHENDİSLİK FAKÜLTESİ
MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ 2025-2026 EĞİTİM-ÖĞRETİM YILI LİSANS DERS PLANI

2. SINIF TEKNİK SEÇMELİ DERSLER

KOD	3. yarıyıl TEKNİK SEÇMELİ DERSLER	Kategori	T	U	L	K	AKTS	KOD	4. yarıyıl TEKNİK SEÇMELİ DERSLER (1 ders seçilir)	Kategori	T	U	L	K	AKTS
								MAK2210	MÜHENDİSLİK EKONOMİSİ	S	2	0	0	2	3
								MAK2211	TASARIMIN TEMEL İLKELERİ	S	2	0	0	2	3
								MAK2212	KOROZYON TEKNİĞİ	S	2	0	0	2	3
								MAK2213	YENİLENEBİLİR ENERJİ KAYNAKLARI	S	2	0	0	2	3

3. SINIF TEKNİK SEÇMELİ DERSLER

KOD	5. yarıyıl TEKNİK SEÇMELİ DERSLER (2 ders seçilir)	Kategori	T	U	L	K	AKTS	KOD	6. yarıyıl TEKNİK SEÇMELİ DERSLER (1 ders seçilir)	Kategori	T	U	L	K	AKTS
MAK3110	SİHHİ TESİSAT	S	2	0	0	2	3	MAK3210	DEMİR DİŞİ METALLER	S	2	0	0	2	3
MAK3111	KONSTRÜKSİYON	S	2	0	0	2	3	MAK3211	ISIL İŞLEMLER	S	2	0	0	2	3
MAK3112	PLASTİK MALZEMELER	S	2	0	0	2	3	MAK3212	KALIP TASARIMI	S	2	0	0	2	3
MAK3113	EKLEMELİ İMALAT TEKNOLOJİLERİ (3D YAZICILAR)	S	2	0	0	2	3	MAK3213	KOMPOZİT MALZEMELER ve MEKANİĞİ	S	2	0	0	2	3
MAK3114	BİLG.DEST.MÜH.UYGULAMALARI (MATLAB)	S	2	0	0	2	3								
MAK3115	ÇEVRE TEKNİĞİ	S	2	0	0	2	3								

4. SINIF TEKNİK SEÇMELİ DERSLER

KOD	7. yarıyıl TEKNİK SEÇMELİ DERSLER (3 ders seçilir)	Kategori	T	U	L	K	AKTS	KOD	8. yarıyıl TEKNİKSEÇMELİ DERSLER (4 ders seçilir)	Kategori	T	U	L	K	AKTS
MAK4101	MOTORLAR II	S	3	0	0	3	4	MAK4201	UYGULAMALI AKIŞKANLAR MEKANİĞİ ANALİZLERİ	S	3	0	0	3	4
MAK4103	ISITMA TEKNİĞİ	S	3	0	0	3	4	MAK4202	İKLİMLENDİRME SİSTEMLERİ	S	3	0	0	3	4
MAK4104	BUHAR KAZANLARI ve TÜRBİNLERİ	S	3	0	0	3	4	MAK4203	ENERJİ YÖNETİMİ	S	3	0	0	3	4
MAK4105	RÜZGAR ENERJİSİ SANTRALLERİ	S	3	0	0	3	4	MAK4204	ENERJİ SANTRALLERİ	S	3	0	0	3	4
MAK4106	SOĞUTMA MÜHENDİSLİĞİ	S	3	0	0	3	4	MAK4206	GAZ TESİSATI	S	3	0	0	3	4
MAK4107	ISI EŞANJÖRLERİ	S	3	0	0	3	4	MAK4207	GÜNEŞ ENERJİSİ SİSTEMLERİ	S	3	0	0	3	4
MAK4108	BİLGİSAYAR DESTEKLİ ÜRETİM	S	3	0	0	3	4	MAK4208	AKIM MAKİNALARI	S	3	0	0	3	4
MAK4109	HİDROLİK VE PNOMATİK	S	3	0	0	3	4	MAK4209	KALİTE KONTROL	S	3	0	0	3	4
MAK4110	ÜRETİM PLANLAMA	S	3	0	0	3	4	MAK4210	MALZEME SEÇİMİ	S	3	0	0	3	4
MAK4111	MODELLEME VE ANALİZ	S	3	0	0	3	4	MAK4211	KAYNAK METALURJİSİ	S	3	0	0	3	4
MAK4112	PROGRAMLANABİLİR MANTIKSAL KONTROLÖRLER (PLC)	S	3	0	0	3	4	MAK4212	ERGONOMİ	S	3	0	0	3	4
MAK4113	FABRİKA ORGANİZASYONU	S	3	0	0	3	4	MAK4213	TAKIM TEZGAH KONSTRÜKSİYONU	S	3	0	0	3	4
MAK4114	TRANSPORT TEKNİĞİ	S	3	0	0	3	4	MAK4214	TAŞIT KONSTRÜKSİYONU	S	3	0	0	3	4
MAK4115	MEKANİK TİTREŞİMLER	S	3	0	0	3	4	MAK4215	TOZ METALURJİSİ	S	3	0	0	3	4
MAK4116	MOTORLU TAŞITLAR	S	3	0	0	3	4	MAK4216	MÜHENDİSLİKTE ISI DEĞİŞTİRİCİ SEÇİMİ	S	3	0	0	3	4
MAK4117	YAKITLAR ve YANMA	S	3	0	0	3	4	MAK4217	KOMPOZİT YAPILARIN TASARIMI	S	3	0	0	3	4
MAK4118	PLASTİK ENJEKSİYON AKIŞ ANALİZLERİ	S	3	0	0	3	4	MAK4218	ÇARPIŞMA SİMÜLASYONU	S	3	0	0	3	4
MAK4123	MEKATRONİK SİSTEMLER	S	3	0	0	3	4	MAK4219	ROBOTİĞE GİRİŞ	S	3	0	0	3	4
MAK4120	GAZ TÜRBİNLERİ	S	3	0	0	3	4	MAK4220	SEKTÖR KAMPÜSTE II	S	3	0	0	3	4
MAK4121	BİLGİSAYAR DESTEKLİ MÜHENDİSLİK ANALİZİ	S	3	0	0	3	4								
MAK4122	SEKTÖR KAMPÜSTE I	S	3	0	0	3	4								

4.SINIF SOSYAL SEÇMELİ DERSLER

KOD	4. sınıf 1. yarıyıl SOSYAL SEÇMELİ DERSLER	Kategori	T	U	L	K	AKTS	KOD	4. sınıf 2. yarıyıl SOSYAL SEÇMELİ DERSLER	Kategori	T	U	L	K	AKTS
MAK4150	GİRİŞİMCİLİK I	S	2	0	0	2	3	MAK4250	GİRİŞİMCİLİK II	S	2	0	0	2	3
MAK4151	BİLİMSEL ÇALIŞMA TEKNİKLERİ VE ETİK	S	2	0	0	2	3								

4.SINIF ÜNİVERSİTE SEÇMELİ DERSLER

KOD	4. sınıf 1. yarıyıl USD I SEÇMELİ DERSLER	Kategori	T	U	L	K	AKTS	KOD	4. sınıf 2. yarıyıl USD II SEÇMELİ DERSLER	Kategori	T	U	L	K	AKTS

Z: Zorunlu S:Seçmeli T:Teorik U:Uygulama K:Kredi

REPUBLIC OF TÜRKİYE
BALIKESİR UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING
2025-2026 UNDERGRADUATE CURRICULUM

1st YEAR

1st SEMESTER

CODE	COURSE NAME	Category	T	A	L	C	ECTS
MAT1101	Mathematics I	C	3	1	0	3,5	5
FIZ1101	Physics I	C	3	0	0	3	4
FIZ1102	Physics I Laboratory	C	0	0	2	1	1
KIM1101	General Chemistry	C	3	0	0	3	4
KIM1102	General Chemistry Laboratory	C	0	0	2	1	1
TRS1101	Technical Drawing I	C	2	2	0	3	4
MAK1101	Introduction to Mechanical Engineering	C	2	0	0	2	2
MAK1102	Linear Algebra	C	3	0	0	3	3
	Total		16	3	4	19,5	24
AİT1101	Atatürk Principles and Turkish Revolution History I	C	2	0	0	2	2
TDİ1101	Turkish Language I	C	2	0	0	2	2
YDİ1102	Foreign Language I	C	2	0	0	2	2
	Grand Total		22	3	8	25,5	30

2nd SEMESTER

CODE	COURSE NAME	Category	T	A	L	C	ECTS
MAT1202	Mathematics II	C	3	1	0	3,5	5
FIZ1201	Physics II	C	3	0	0	3	4
FIZ1202	Physics II Laboratory	C	0	0	2	1	1
MAK1202	Statics	C	3	0	0	3	3
BİL1202	Introduction to Algorithms and Programming	C	2	1	0	2,5	3
MAK1201	Computer Aided Techn. Drawing	C	2	2	0	3	3
KRY1201	Career Planning	C	1	0	0	1	2
İST1202	Statistics	C	2	1	0	2,5	3
	Total		16	6	2	19,5	24
AİT1201	Ataturk Principles and Turkish Revolution History II	C	2	0	0	2	2
TDİ1201	Turkish Language II	C	2	0	0	2	2
YDİ1202	Foreign Language II	C	2	0	0	2	2
	Grand Total		22	4	2	25,5	30

2nd YEAR

3rd SEMESTER

CODE	COURSE NAME	Category	T	A	L	C	ECTS
MAK2101	Differential equations	C	3	1	0	3,5	4
MAK2102	Materials Science I	C	3	0	0	3	4
MAK2103	Strength of the Materials I	C	3	0	0	3	4
MAK2104	Dynamics	C	3	0	0	3	4
MAK2105	Thermodynamics I	C	3	0	0	3	4
MAK2106	Numerical Analysis	C	3	0	0	3	4
MAK2107	Technical English I	C	3	0	0	3	3
MAK2108	Measurement Technique	C	2	1	0	2,5	3
	Total		23	2	0	24	30

4th SEMESTER

CODE	COURSE NAME	Category	T	A	L	C	ECTS
MAK2201	Engineering Mathematics	C	3	0	0	3	3
MAK2202	Materials Science II	C	2	0	0	2	3
MAK2203	Strength of the Materials II	C	3	0	0	3	4
MAK2204	Thermodynamics II	C	3	0	0	3	4
MAK2205	Fluid Mechanics I	C	3	0	0	3	3
MAK2206	Mechanism Technique	C	2	0	0	2	2
MAK2207	Technical English II	C	3	0	0	3	4
MAK2208	Computer Aided Modeling and Drafting	C	2	0	0	2	2
	Technical Elective Courses I (1 course Selected)	S	2	0	0	2	3
STJ1101	Summer Internship	C	0	0	0	0	2
	Total		23	0	0	23	30

3rd YEAR

5th SEMESTER

CODE	COURSE NAME	Category	T	A	L	C	ECTS
İSG3101	Occupational Health and Safety I	C	2	0	0	2	2
MAK3101	Fluid Mechanics II	C	3	0	0	3	4
MAK3102	Machine Elements I	C	3	0	0	3	4
MAK3103	Automatic Control	C	3	1	0	3,5	4
MAK3104	Manufacturing methods I	C	3	0	0	3	4
MAK3105	Introduction to Finite Element Method	C	2	0	0	2	3
MAK3106	Electrotechnics	C	2	0	0	2	3
	Technical Elective Courses II (2 course selected)	E	4	0	0	4	6
	Total		22	1	0	22,5	30

6th SEMESTER

CODE	COURSE NAME	Category	T	A	L	C	ECTS
İSG3201	Occupational Health and Safety II	C	2	0	0	2	2
MAK3201	Heat Transfer	C	4	0	0	4	4
MAK3202	Machine Elements II	C	3	0	0	3	4
MAK3203	Internal Combustion Engines I	C	3	0	0	3	4
MAK3204	Machine Dynamic	C	3	0	0	3	4
MAK3205	Manufacturing methods II	C	3	0	0	3	4
MAK3206	Laboratory I	C	0	0	2	1	2
	Technical Elective Courses III (1 course selected)	E	2	0	0	2	3
STJ1201	Summer Internship	C	0	0	0	0	3
	Total		20	0	2	21	30

4th YEAR

7th SEMESTER

CODE	COURSE NAME	Category	T	A	L	C	ECTS
MAK4199	Laboratory II	C	0	0	2	1	2
MAK4198	Mechanical Engineering Design I	C	2	0	0	2	2
	Technical Elective Courses IV (5 course selected)	E	15	0	0	15	20
	Social Elective Courses I (1 Course selected)	E	2	0	0	2	3
	University Elective Courses I (1 Course selected)	E	2	0	0	2	3
	Total		21	0	2	22	30

8th SEMESTER

CODE	COURSE NAME	Category	T	A	L	C	ECTS
GROUP 1	MAK4298 - Mechanical Engineering Design II	C	2	2	0	3	8
	Elective Courses V (4 course selected)	E	12	0	0	12	16
	Social Elective Courses II (1 Course selected)	E	2	0	0	2	3
	University Elective Courses II (1 Course selected)	E	2	0	0	2	3
GROUP 2 İME4201	Technical Training in the Workplace	E	5	28	0	19	30
	Total					19	30

C: Compulsory E: Elective T: Theory A: Application L: Laboratory C: Credit

**REPUBLIC OF TÜRKİYE
BALIKESİR UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING
2025-2026 UNDERGRADUATE ELECTIVE COURSES**

2nd Year Technical Elective Courses

		CODE	4th Semester Technical Elective Courses	Category	T	A	L	C	ECTS
		MAK2210	Engineering Economy	E	2	0	0	2	3
		MAK2211	The Basic Principles of Design	E	2	0	0	0	3
		MAK2212	Corrosion Technique	E	2	0	0	2	3
		MAK2213	Renewable Energy Resources	E	2	0	0	2	3

3rd Year Technical Elective Courses

CODE	5th Semester Technical Elective Courses	Category	T	A	L	C	ECTS	CODE	6th Semester Technical Elective Courses	Category	T	A	L	C	ECTS
MAK3110	Sanitary Installation	E	2	0	0	2	3	MAK3210	Non-Ferrous Metals	E	2	0	0	2	3
MAK3111	Construction	E	2	0	0	2	3	MAK3211	Heat Treatments	E	2	0	0	2	3
MAK3112	Plastic Materials	E	2	0	0	2	3	MAK3212	Die and Mold Design	E	2	0	0	2	3
MAK3113	Additive Manufacturing Tec.(3D Printers)	E	2	0	0	2	3	MAK3213	Mechanics of Composite Materials	E	2	0	0	2	3
MAK3114	Scientific Work Techniques And Ethic	E	2	0	0	2	3								
MAK3115	Computer Aided Engineering Applications (MATLAB)	E	2	0	0	2	3								
MAK3116	Environmental Techniques	E	2	0	0	2	3								

4th Year Social Elective Courses

CODE	Social Elective Courses I	Category	T	A	L	C	ECTS	CODE	Social Elective Courses II	Category	T	A	L	C	ECTS
MAK4150	Entrepreneurship I	E	2	0	0	2	3	MAK4250	Entrepreneurship II	E	2	0	0	2	3
MAK4151	Scientific Work Techniques And Ethic	E	2	0	0	2	3								

4th Year University Elective Courses

CODE	University Elective Courses I	Category	T	A	L	C	ECTS	CODE	University Elective Courses I	Category	T	A	L	C	ECTS

4th Year Technical Courses Selected

CODE	7th Semester Technical Elective Courses	Category	T	A	L	C	ECTS	CODE	8th Semester Technical Elective Courses	Category	T	A	L	C	ECTS
MAK4101	Internal Combustion Engines II	E	3	0	0	3	4	MAK4201	Applied Fluid Mechanics Analysis	E	3	0	0	3	4
MAK4103	Heating Systems	E	3	0	0	3	4	MAK4202	Air Conditioning Systems	E	3	0	0	3	4
MAK4104	Steam Boiler and turbines	E	3	0	0	3	4	MAK4203	Energy Management	E	3	0	0	3	4
MAK4105	Wind Power Plant	E	3	0	0	3	4	MAK4204	Power Plants Technology	E	3	0	0	3	4
MAK4106	Refrigeration Engineering	E	3	0	0	3	4	MAK4206	Gas Installation	E	3	0	0	3	4
MAK4107	Heat Exchangers	E	3	0	0	3	4	MAK4207	Solar Energy Systems	E	3	0	0	3	4
MAK4108	Computer Aided Manufacturing	E	3	0	0	3	4	MAK4208	Flow Machines	E	3	0	0	3	4
MAK4109	Hydraulic and Pneumatics	E	3	0	0	3	4	MAK4209	Quality Control	E	3	0	0	3	4
MAK4110	Production Planning	E	3	0	0	3	4	MAK4210	Materials Selection	E	3	0	0	3	4
MAK4111	Modeling and Analysis	E	3	0	0	3	4	MAK4211	Metallurgy of Welding	E	3	0	0	3	4
MAK4112	Programmable Logical Controls (PLC)	E	3	0	0	3	4	MAK4212	Ergonomics	E	3	0	0	3	4
MAK4113	Factory Organization	E	3	0	0	3	4	MAK4213	Machine Tool Constructions	E	3	0	0	3	4
MAK4114	Transport Technique	E	3	0	0	3	4	MAK4214	Vehicle Construction	E	3	0	0	3	4
MAK4115	Mechanical Vibrations	E	3	0	0	3	4	MAK4215	Powder Metallurgy	E	3	0	0	3	4
MAK4116	Motor Vehicles	E	3	0	0	3	4	MAK4216	Heat Exchanger Selection in Engineering	E	3	0	0	3	4
MAK4117	Fuels and Combustion	E	3	0	0	3	4	MAK4217	Design of Composite Structure	E	3	0	0	3	4
MAK4118	Plastic Injection Flow Analysis	E	3	0	0	3	4	MAK4218	Crash Simulation	E	3	0	0	3	4
MAK4123	Mecatronics Systems	E	3	0	0	3	4	MAK4219	Introduction to Robotics	E	3	0	0	3	4
MAK4120	Gas Turbines	E	3	0	0	3	4	MAK4220	Sector on Campus II	E	3	0	0	3	4
MAK4121	Computer Aided Engineerin Analysis	E	3	0	0	3	4								
MAK4122	Sector on Campus I	E	3	0	0	3	4								

C: Compulsory E: Elective T: Theory A: Application L: Laboratory C: Credit