

BIOMEDICAL ENGINEERING DEPARTMENT

BİRİNCİ YARIYIL (GÜZ) / FIRST SEMESTER

Kod Code	Dersler Courses	Önkoşul Prerequisite	T	U	L	Y Credit	AKTS ECTS
BME 102	Introduction to Biomedical Engineering	-	2	2	0	3	2
AFE 131	Academic English I		2	2	0	3	4
CHEM 101	General Chemistry	-	3	1	1	4	6
ES 161	Engineering Drawing	-	1	0	2	2	5
MATH 131	Calculus I	-	3	2	0	4	6
PHYS 101	Physics I	-	3	0	2	4	6
	Toplam		14	7	5	20	29

İKİNCİ YARIYIL (BAHAR) / Second Semester

Kod Code	Dersler Courses	Önkoşul Prerequisite	T	U	L	Y Credit	AKTS ECTS
AFE 132	Academic English II		2	2	0	3	4
ES 112	Algorithms & Computer Programming		3	0	2	4	6
MATH 132	Calculus II		3	2	0	4	6
MATH 221	Linear Algebra		3	1	0	4	6
PHYS 102	Physics II		3	0	2	4	6
HUM 103	Humanities		2	0	0	2	3
	Toplam		16	5	4	21	31

ÜÇÜNCÜ YARIYIL (GÜZ) / Third Semester

Kod Code	Dersler Courses	Önkoşul Prerequisite	T	U	L	Y Credit	AKTS ECTS
BME 211	Biological and Medical Physics	-	2	2	0	3	11
BME 213	Biology in Biomedical Engineering	-	3	0	0	3	6
CHBE 203	Organic Chemistry		2	0	2	3	5
MATH 241	Differential Equations		3	2	0	4	6
TKL 201	Turkish Language I		2	0	0	2	2
	Toplam		12	4	2	15	30

DÖRDÜNCÜ YARIYIL (BAHAR) / Fourth Semester

Kod Code	Dersler Courses	Önkoşul Prerequisite	T	U	L	Y Credit	AKTS ECTS
BME 214	Electrical Circuits in Biomedical Eng.	PHYS 102	2	0	2	3	5
BME 222	Electromagnetic Fields and Waves in BME	PHYS 102/MATH 132	3	0	0	3	6
BME 252	Biomechanics	-	3	0	0	3	6
BME 262	Biomaterials	-	2	2	0	3	6
FE XX1	Free Elective I	-	3	0	0	3	5
TKL 202	Turkish Language II	-	2	0	0	2	2
	Toplam		15	2	2	17	30

BEŞİNCİ YARIYIL (GÜZ) / Fifth Semester								
Kod Code		Dersler Courses	Önkoşul Prerequisite	T	U	L	Y Credit	AKTS ECTS
BME	301	Biomedical Electronics I	BME 214	3	0	2	4	6
BME	313	Human Physiology	-	3	0	0	3	5
BME	351	Modeling and Control of Biomedical Sys.	-	2	2	0	3	6
ES	224	Signals and Systems	-	2	2	0	3	5
ES	272	Numerical Analysis	-	2	2	0	3	6
HTR	301	History of Turkish Revolution I	-	2	0	0	2	2
		Toplam		14	6	2	18	30
ALTINCI YARIYIL (BAHAR) / Sixth Semester								
Kod Code		Dersler Courses	Önkoşul Prerequisite	T	U	L	Y Credit	AKTS ECTS
BME	302	Biomedical Electronics II	BME 301	3	0	2	4	8
BME	314	Biomedical Instrumentation	BME301	3	0	2	4	8
BME	324	Biomedical Sensors and Transducers	BME 301	3	0	0	3	7
BME	XX1	Restricted Elective I	-	3	0	0	3	5
HTR	302	History of Turkish Revolution II	-	2	0	0	2	2
		Toplam		14	0	4	16	30
YEDİNCİ YARIYIL (GÜZ) / Seventh Semester								
Kod Code		Dersler Courses	Önkoşul Prerequisite	T	U	L	Y Credit	AKTS ECTS
BME	421	Medical Imaging	-	2	0	2	3	9
BME	441	Microprocessors & Microcontrollers in BME	BME 302	3	0	2	4	8
BME	XX2	Restricted Elective II	-	3	0	0	3	5
BME	XX3	Restricted Elective III	-	3	0	0	3	5
ES	301	Engineering Management	-	3	0	0	3	4
BME	400	Summer Practice	AFE 132	0	2	0	0	1
		Toplam		14	2	4	16	32
SEKİZİNCİ YARIYIL (BAHAR) / Eighth Semester								
Kod Code		Dersler Courses	Önkoşul Prerequisite	T	U	L	Y Credit	AKTS ECTS
BME	492	Engineering Project	-	1	0	4	3	8
BME	XX4	Restricted Elective IV	-	3	0	0	3	5
BME	XX5	Restricted Elective V	-	3	0	0	3	5
BME	XX6	Restricted Elective VI	-	3	0	0	3	5
FE	XX2	Free Elective II	-	3	0	0	3	5
		Toplam		13	0	4	15	28
		Genel Toplam					138	240

BÖLÜM SEÇMELİ DERSLER (GÜZ) / AREA ELECTİVES

Kod Code	Dersler Courses	Önkoşul Prerequisite	T	U	L	Y Credit	AKTS ECTS
BME 332	Noise Reduction Techniques in Biomedical Engineering		3	0	0	3	5
BME 372	Modern Drug Transport Systems		3	0	0	3	5
BME 412	Magnetic Resonance Spectroscopic Imaging		3	0	0	3	5
BME 413	Biyomedikal ve Dental Dolgu Malzemeleri		2	0	2	3	5
BME 414	Orthopedic Cement For Hard Tissue Repair		3	0	0	3	5
BME 423	Biometry For Analytical Reasoning And Modeling		3	0	0	3	5
BME 442	Artificial Intelligence in Medicine		3	0	0	3	5
BME 444	Magnetic Resonance Imaging		3	0	0	3	5
BME 452	Pain Management Technics		3	0	0	3	5
BME 462	Medical Robotics		3	0	0	3	5
BME 482	Laser-Tissue Interaction		3	0	0	3	5
BME 483	Photomedicine		3	0	0	3	5