



İSTANBUL ATLAS UNIVERSITY 2024-2025
FACULTY OF ENGINEERING AND NATURAL SCIENCES
DEPARTMENT OF BIOMEDICAL ENGINEERING

I. Semester							II. Semester										
Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.	Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.		
1400111001	Calculus I	4	0	4	6	Z		1400121002	Calculus II	4	0	4	6	Z			
1400111009	Programming I	1	4	3	3	Z		1400121006	Physics II	3	2	4	5	Z			
1400111005	Physics I	3	2	4	5	Z		1400121008	Discrete Mathematics	3	0	3	5	Z			
1400111007	Chemistry	2	2	3	5	Z		1400121012	Programming II	1	4	3	3	Z			
1400111011	Introduction to Engineering and Ethics	2	0	2	3	Z		1400121010	Linear Algebra	2	0	2	5	Z			
5010111015	Türk Dili	4	0	4	4	Z		5010111002	Atatürk İlkeleri ve İnkılap Tarihi	4	0	4	4	Z			
5010111005	Kariyer Planlama	1	0	1	2	Z		5010111012	Almanca II	2	0	2	2	Z			
5010111011	Almanca I	2	0	2	2	Z											
I. Semester Credit Total							23	30	II. Semester Credit Total							22	30

III. Semester							IV. Semester										
Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.	Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.		
1400211013	Probability and Statistics	3	0	3	6	Z		1400221012	Occupational Safety and Health	2	0	2	2	Z			
1400211015	Differential Equations	3	0	3	6	Z		1400221024	Microprocessors	2	2	3	6	Z			
1400211019	Electrical Circuits	3	2	4	6	Z		1400221028	Electronic Circuits I	3	2	4	6	Z			
1417211001	Human Anatomy and Physiology	2	2	3	6	Z		1400221022	Signal and Systems	3	0	3	6	Z			
1417211003	Biology	2	2	3	6	Z		1400221030	Numerical Methods	2	2	3	7	Z			
								1417221004	Summer Training I	0	0	0	3	Z			
III. Semester Credit Total							16	30	IV. Semester Credit Total							15	30

V. Semester							VI. Semester										
Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.	Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.		
1417311011	Biomechanics	2	2	3	6	Z		1400221020	Entrepreneurship	2	0	2	3	Z			
1417311009	Biomaterials	2	2	3	5	Z		1417321004	Medical Imaging	2	2	3	5	Z			
1400311025	Biochemistry I	3	2	4	6	Z		1417321014	Biomedical Instrumentation	3	2	3	6	Z			
	Department Elective	3	0	3	5	S		1417321012	Summer Training II	0	0	0	3	Z			
	Department Elective	3	0	3	5	S			Department Elective	3	0	3	5	S			
	University Elective	2	0	2	3	S			Department Elective	3	0	3	5	S			
									University Elective	2	0	2	3	S			
V. Semester Credit Total							18	30	VI. Semester Credit Total							16	30

VII. Semester							VIII. Semester										
Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.	Course Code	Course Title	T	P	Cr.	ECTS	Type	Prereq.		
1417411015	Graduation Project I	0	6	3	6	Z		1417421014	Advanced Biomedical Device Design	2	2	3	6	Z			
1400411001	Interdisciplinary Desing Studies	2	0	2	6	Z		1417421016	Graduation Project II	0	6	3	8	Z			
	Department Elective	3	0	3	5	S			Department Elective	3	0	3	5	S			
	Department Elective	3	0	3	5	S			Department Elective	3	0	3	5	S			
	Department Elective	3	0	3	5	S			University Elective	2	0	2	3	S			
	University Elective	2	0	2	3	S			University Elective	2	0	2	3	S			
VII. Semester Credit Total							16	30	VIII. Semester Credit Total							16	30

Total Credit/Hours	142
Total ECTS	240

DEPARTMENTAL ELECTIVES						
Course Code	Course Title	T	P	Cr.	ECTS	Elective
1417002001	Biotechnology	3	0	3	5	S
1417002005	Introduction to Data Mining	3	0	3	5	S
1417002006	Nanotechnology and Nanomaterials	3	0	3	5	S
1417002007	Medical Image Processing	3	0	3	5	S
1417002008	Clinical Engineering	3	0	3	5	S
1417002010	Biofluid Dynamics	3	0	3	5	S
1417002013	Technical Drawing (AutoCad)	0	6	3	5	S
1417002014	Python Programming	3	0	3	5	S
1417002016	Drug and Medical Device Development and	3	0	3	5	S
1417002017	Tissue Engineering	3	0	3	5	S
1417002018	Biosensors	2	2	3	5	S
1417002019	Marketing and Communication Techniques	3	0	3	5	S
1417002020	Research Studies	2	2	3	5	S
1417002021	Biothermodynamics	3	0	3	5	S
1417002022	Artificial Intelligence in Biomedical Applications	3	0	3	5	S
1417002023	Digital Signal Processing	3	0	3	5	S
1417002024	Digital Electronic Circuits	3	0	3	5	S
1417002025	Digital Filters and Systems	3	0	3	5	S
1417002026	Microelectronic Analog Circuit Design	3	0	3	5	S
1417002027	History of Science	2	2	3	5	S