

EK-1a

YILDIZ TECHNICAL UNIVERSITY
FACULTY OF ELECTRICAL & ELECTRONICS
DEPARTMENT OF BIOMEDICAL ENGINEERING
UNDERGRADUATE CURRICULUM

	1st SEMESTER										2nd SEMESTER										
	Course		Hours			Credits		Other Issues			Code	Course		Hours			Credits		Other Issues		
	Code	Name	T	U	L	Local (K)	ECTS	R/E	Language	Prerequisites		Code	Name	T	U	L	Local (K)	ECTS	R/E	Language	Prerequisites
1st SEMESTER	MAT1071	Mathematics 1	3	2	0	4	6	R	EN		2nd SEMESTER	MAT1072	Mathematics 2	3	2	0	4	6	R	EN	
	FIZ1001	Physics 1	3	0	2	4	5	R	EN			FIZ1002	Physics 2	3	0	2	4	5	R	EN	
	KIM1170	General Chemistry	3	0	2	4	5	R	EN			BME1132	Probability & Biostatistics	3	0	0	3	5	R	EN	
	BME1101	Introduction to Biomedical Engineering	3	0	0	3	5	R	EN			BME1532	Cell Biology	3	0	0	3	5	R	EN	
	BME1901	Introductory Computer Sciences	2	0	2	3	4	R	EN			BME1902	Computer Aided Design	2	0	2	3	4	R	EN	
	MDB1031	Advanced English I	3	0	0	3	3	R	EN			MDB1032	Advanced English II	3	0	0	3	3	R	EN	
	TDB1031	Turkish Language 1	2	0	0	0	2	R	TR			TDB1032	Turkish Language 2	2	0	0	0	2	R	TR	
	Total	7 Courses				21	30				Total	7 Courses				20	30				
3rd SEMESTER	MAT1320	Linear Algebra	2	0	0	2	3	R	EN		4th SEMESTER	BME2122	Signals & Systems	3	0	0	3	5	R	EN	MAT2411
	MAT2411	Differential Equations	4	0	0	4	5	R	EN			BME2912	Numerical Methods in Biomedical Engineering	3	0	0	3	5	R	EN	BME1901
	BME2911	Introduction to Human Anatomy & Physiology	3	0	0	3	4	R	EN			BME2312	Analog Electronics	3	0	2	4	6	R	EN	BME2301
	BME2901	Biochemistry	3	0	2	4	5	R	EN	KIM1170		BME2322	Logic Design	2	0	2	3	5	R	EN	
	BME2301	Circuit Theory	4	0	2	5	6	R	EN			BME2002	General Internship	0	0	0	0	3	R	-	
	BME2011	Occupational Health and Safety 1	2	0	0	2	2	R	EN			BME2012	Occupational Health and Safety 2	2	0	0	2	2	R	EN	
	SEC0001	Social Elective 1-1	3	0	0	3	3	E	EN			SEC0003	Social Elective 2-1	3	0	0	3	4	E	EN	
	SEC0002	Elective 1-1	2	0	0	2	2	E	EN												
		Total	8 Courses				25	30					Total	7 Courses				18	30		
5th SEMESTER	BME3321	Introduction to Microcontroller Programming	3	0	2	4	5	R	EN	BME2322	6th SEMESTER	BME3142	Biomedical Modeling & Simulation	3	0	0	3	4	R	EN	
	BME3921	Bioelectronics I	3	0	0	3	5	R	EN			BME3402	Medical Instrumentation	3	0	2	4	6	R	EN	BME2312
	BME3161	Biosignal Processing	3	0	0	3	4	R	EN	BME2122		BME3522	Biomechanics I	3	0	0	3	5	R	EN	
	BME3711	Biothermodynamics	3	0	0	3	5	R	EN			BME3922	Biomechanics II	3	0	0	3	5	R	EN	BME3921
	SEC0004	Occupational Elective 1-1	3	0	0	3	5	E	EN			BME3002	Professional Internship	0	0	0	0	3	R	-	
	SEC0005	Occupational Elective 2-1	3	0	0	3	4	E	EN			SEC0006	Occupational Elective 1-2	3	0	0	3	5	E	EN	
	ATA1031	Principles of Atatürk and History of Modern Turkey I	2	0	0	0	2	R	TR			ATA1032	Principles of Atatürk and History of Modern Turkey II	2	0	0	0	2	R	TR	
		Total	7 Courses				19	30					Total	7 Courses				16	30		
7th SEMESTER	BME4901	Engineering Design	2	2	0	3	3	R	EN		8th SEMESTER	BME4000	Graduation Thesis	0	3	0	4	9	R	EN	BME4901
	BME4911	Medical Imaging	3	0	2	4	6	R	EN	BME2911, BME3142		BME4352	Therapeutic And Prosthetic Devices	3	0	0	3	4	R	EN	
	SEC0007	Occupational Elective 1-3	3	0	0	3	5	E	EN			SEC0012	Occupational Elective 1-5	3	0	0	3	5	E	EN	
	SEC0008	Occupational Elective 1-4	3	0	0	3	5	E	EN			SEC0013	Occupational Elective 1-6	3	0	0	3	5	E	EN	
	SEC0009	Occupational Elective 2-2	3	0	0	3	4	E	EN			SEC0014	Occupational Elective 2-3	3	0	0	3	4	E	EN	
	SEC0010	Social Elective 2-2	3	0	0	3	4	E	EN			SEC0015	Social Elective 1-2	3	0	0	3	3	E	EN	
	SEC0011	Elective 2-1	0	2	0	1	3	E	EN												
		Total	7 Courses				20	30					Total	6 Courses				19	30		
OCCUPATIONAL ELECTIVE 1 COURSES	BME3540	Cell and Tissue Engineering	3	0	0	3	5	E	EN	BME1532	SOCIAL ELECTIVE 1 COURSES	MDB4011	Introduction to German Language Skills	3	0	0	3	3	E	EN	
	BME4580	Genetic Engineering	3	0	0	3	5	E	EN	BME1532		MDB4021	German Language Skills	3	0	0	3	3	E	EN	
	BME3570	Biosensors	3	0	0	3	5	E	EN			ITB2020	History of Science	3	0	0	3	3	E	EN	
	BME3210	Cardiovascular Mechanics	3	0	0	3	5	E	EN	BME3142		ITB2030	Philosophy of Science	3	0	0	3	3	E	EN	
	BME3360	BioMEMS	3	0	0	3	5	E	EN			ITB2040	Economic Policies and Applications	3	0	0	3	3	E	EN	
	BME3500	Introduction to Neural Engineering	3	0	0	3	5	E	EN			ITB2080	Women in Social Transformations	3	0	0	3	3	E	EN	
	BME3600	Special Topics in Biomedical Engineering	3	0	0	3	5	E	EN			ITB2090	Democracy Culture Principles and Institutions	3	0	0	3	3	E	EN	
	BME3160	Bioinformatics	3	0	0	3	5	E	EN			ITB3010	Sociology	3	0	0	3	3	E	EN	
	BME4500	Introduction to Nuclear Medicine	3	0	0	3	5	E	EN			ITB3020	Introduction to Philosophy	3	0	0	3	3	E	EN	
	BME4600	Fluid Dynamics	3	0	0	3	5	E	EN			ITB3040	Political Developments and Social Movements in Twentieth-Century	3	0	0	3	3	E	EN	
										ITB3130	Political Ideologies: Theory and History	3	0	0	3	3	E	EN			
										ITB3150	History and Cinema	3	0	0	3	3	E	EN			
										ITB3210	Communication in Contemporary Society	3	0	0	3	3	E	EN			
										ITB3220	Modernity and Consumer Society	3	0	0	3	3	E	EN			
										ITB3250	Introduction to Psychology	3	0	0	3	3	E	EN			
										ITB3260	Cultural Studies and Identity	3	0	0	3	3	E	EN			
										ITB3270	Isatutal: Past, Present, and Future	3	0	0	3	3	E	EN			
										ITB3320	Environment and Ecology	3	0	0	3	3	E	EN			
										ITB3360	History of Art	3	0	0	3	3	E	EN			
										ITB3390	History of Civilizations	3	0	0	3	3	E	EN			
										ITB3420	The Social Structure of Ottoman Empire	3	0	0	3	3	E	EN			
										ITB3550	Human Rights	3	0	0	3	3	E	EN			
										ITB3560	Political Philosophy	3	0	0	3	3	E	EN			
										ITB3570	Philosophy of Education	3	0	0	3	3	E	EN			
										ITB4930	History of Architecture	3	0	0	3	3	E	EN			
										ITB4100	Social Structures and Historical Transformations	3	0	0	3	3	E	EN			
ELECTIVE 1 COURSES	MDB2051	Reading and Speaking in English	2	0	0	2	2	E	EN		SOCIAL ELECTIVE 2 COURSES	IKT3522	Macroeconomic Policies	3	0	0	3	4	E	EN	
	MDB3032	Business English	2	0	0	2	2	E	EN			IKT3562	History of Turkish Administration	3	0	0	3	4	E	EN	
										ISL1611		Introduction to Business	3	0	0	3	4	E	EN		
										ISL1711		Introduction to Law	3	0	0	3	4	E	EN		
										ISL1622		Behavior Science	3	0	0	3	4	E	EN		
										ISL3411		Marketing	3	0	0	3	4	E	EN		
										ISL3621		Production Management	3	0	0	3	4	E	EN		
										ISL3522		International Marketing	3	0	0	3	4	E	EN		
										ISL3912		Human Resource Management (Business Administration)	3	0	0	3	4	E	EN		
										ISL4551		Operations Research I	3	0	0	3	4	E	EN		
										ISL3040		Team Building and Development in Organizations	3	0	0	3	4	E	EN		
										ISL3531		Behavioral Sustainability	3	0	0	3	4	E	EN		
										ISL3631		Career and Work Psychology	3	0	0	3	4	E	EN		
										ISL3660		Business Communication	3	0	0	3	4	E	EN		
										ISL3930		Corporate Reputation from the Behavioral Perspective	3	0	0	3	4	E	EN		
										ISL3972		Occupational Health and Safety Law	3	0	0	3	4	E	EN		
										ISL4420		Sales Management	3	0	0	3	4	E	EN		
										ISL4611		Business Ethics	3	0	0	3	4	E	EN		
										ISL4640		Entrepreneurship	3	0	0	3	4	E	EN		
										ISL4760		Financial and Cost Accounting	3	0	0	3	4	E	EN		
										ISL4851		Inventory Management in Management	3	0	0	3	4	E	EN		
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