## Graduation requirements for students whose first semester start at or after Fall 2020 are as follows:

- 1. 177,5 ECTS core courses listed below.
- 2. At least 6 elective courses. Total credits for these courses must be at least 17,5 ECTS. One of these courses must be an elective course specific to Higher Education Council (HEC) of Turkiye. More than one elective courses specific to HEC are not counted for credits but GPA.
- 3. At least 10 area elective courses. Total credits for these courses must be at least 45 ECTS. Students cannot register to these courses before their fifth semester.
- 4. Total credits must be at least 240 ECTS.
- 5. Minimum GPA must be at least 2.0.
- 5. All registered courses must be offered in English. Only if an elective course is not offered in English, you can then register it in Turkish.
- 6. Students have to complete their mandatory 40-day internship.
- (\*) Starting from 2021-2022 Fall semester, all students must register to "MAT247 Eng. Mathematics" instead of "BIM313 Adv. Prog. Techniques" regardless of the year of university registration.
- (\*\*) Starting from 2021-2022 Fall semester, the minimum required ECTS credits of this course have been updated as 2.0 (instead of 3.0) for the students registered to MAT247 instead of BIM313.

## Undergraduate curriculum for the students whose 1st semester will start at or after Fall 2020

I. Semester									
Code Course Name T L									
BIM101	Computer Programming I	3	2	7,0					
FIZ105	Physics I	4	0	6,0					
FIZ107	Physics Laboratory I			1,5					
KIM113 General Chemistry		4	0	6,0					
MAT805	Calculus I	4	2	7,5					
TUR125	TUR125 Turk Dili I		0	2,0					
Total Credits									

III. Semester							
Code	Course Name	T	L	E			
BIM203	Logic Design	4	0	6,0			
BIM207	Computer Programming III	2	6,0				
BIM209	Principles of Software Des. And Dev.	0	6,0				
BIM213	Data Structures and Algorithms 2						
MAT249 Linear Algebra and Differential Equations		3	0	4,5			
TAR165 Ataturk Ilkeleri ve Inkilap Tarihi I 2							
Total Cr	edits			30,0			

II. Semester							
Code	Course Name	T	L	E			
BIM102	Computer Programming II 3 (		0	6,0			
BIM122	Discrete Computational Structures 3 0			5,0			
FIZ106	Physics II 4 0			6,0			
FIZ108	Physics Laboratory II		2	1,5			
MAT806 Calculus II		4	2	7,5			
TUR126	Turk Dili II	2	0	2,0			
	Elective Course			2,0			
Total Cre	edits			30,0			

IV. Semester							
Code	Course Name	T	L	E			
BIM204	Numeric Analysis for Computer Engineers	3	0	3,5			
BIM208	Computer Programming IV	3	0	5,5			
BIM222	Internet Programming 3						
BIM312	Database Management Systems 3						
BIM314	Theory of Computation	3	0	4,5			
IST252	Probability and Statistics	3	0	4,0			
TAR166	Ataturk Ilkeleri ve Inkilap Tarihi II 2						
Total Cr	edits			30,0			

V. Semester					
Code	Course Name	T	L	E	
BIM303	Microcomputers 3		2	7,0	
BIM305	0	5,0			
BIM311	0	4,5			
MAT247 Engineering Mathematics (*) 4		0	7,0		
	Elective Course (**)			2,0	
	Area Elective Course			4,5	
Total Cre	dits			30,0	
	TITE C. A				

VII. Semester							
Code	Course Name	T	L	E			
BIM437	Computer Engineering Design	1	2	4,0			
ISG401	SG401 Is Sagligi ve Guvenligi I 2						
	Elective Courses (2)			6,0			
	Area Elective Courses (4)			18,0			
<b>Total Credits</b>				30,0			

VI. Semester							
Code	Course Name	T	L	E			
BIM302	Computer Networks	1					
BIM304	5 1 1 5 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5						
BIM306	Operating Systems	0	4,5				
BIM308	Web Server Programming	3	0	6,0			
	Elective Course			4,5			
	Area Elective Course						
<b>Total Cre</b>	dits			30,0			

VIII. Semester							
Code	Course Name	T	L	E			
BIM444	Computer Engineering Applications	2	4	7,0			
ISG402	Is Sagligi ve Guvenligi II	2	0	2,0			
	Elective Course			3,0			
	Area Elective Courses (4)			18,0			
Total Credits				30,0			

		Ar	·ea	Ele	ctive
Code	Course Name	T	${f L}$	E	
BIM309	Artificial Intelligence	3	0	4,5	
BIM423	Software Engineering	3	2	6,0	
BIM439	Applications of DBMS	3	0	4,5	
BIM443	Blockchain and Cryptocurrency Techno.	3	0	4,5	
BIM451	Web Server Programming with MVC	3	0	4,5	
BIM466	Fuzzy Logic	3	0	4,5	
BIM470	Neural Networks	3	0	4,5	
BIM476	Data Acquisition and Processing	3	0	4,5	
BIM485	Research in Computer Science I	3	0	4,5	
BIM488	Introduction to Pattern Recognition	3	0	4,5	
BIM493	Mobile Programming I	3	0	4,5	
BIM446	Analysis of Algorithms	3	0	4,5	
BIM450	Network Management	3	0	4,5	
BIM452	Multimedia Computing	3	0	4,5	
BIM456	Network Security Principles	3	0	4,5	
BIM458	Simulation and Modelling	3	0	4,5	
BIM460	Software Modelling	3	0	4,5	
BIM462	Parallel Systems	3	0	4,5	
BIM464	Human-Computer Interaction	3	0	4,5	-
BIM468	Computer Aided Design	3	0	4,5	

Courses				
BIM405	Project Management	3	0	4,5
BIM445	Enterprise IT Arhitecture	2	0	3,0
BIM448	Computer Graphics	3	0	4,5
BIM454	Programming Language Concepts	3	0	4,5
BIM472	Image Processing	3	0	4,5
BIM478	Management Information Systems	3	0	4,5
BIM486	Research in Computer Science II	3	0	4,5
BIM490	Introduction to Information Retrieval	3	0	4,5
BIM492	Design Patterns	3	0	4,5
BIM494	Mobile Programming II			4,5
BIM496	Computer Vision	3	0	4,5
BIM474	Introduction to Cryptography	3	0	4,5
BIM480	Compiler Design	3	0	4,5
BIM482				4,5
BIM484			0	4,5
EEM305	Signals and Systems	3	0	4,5
EEM334	Digital Systems II	3	0	4,5
MUH302	Interdisciplinary Applications	1	2	4,5
BIM441	Introduction to Rough Sets Theory	3	0	4,5
BIM498	Embedded Software Design	3	0	4,5
BIM453	Introduction to Machine Learning	3	0	4,5

ENM440	Introduction to Data Mining	3 0	4,5		BIM457	Embedded Programming Languages	3	0	5,0
EEM463	Introduction to Image Processing		5,0		BIM455	Introduction to Hardware Design			4,5
		E	lecti	ive Co	urses				
Code	Course Name	ΤI	E		Code	Course Name	T	L	E
ALM255	Almanca I	3 0	4,0		ITA255	Italyanca I	3	0	4,0
ALM256	Almanca II	3 0	4,0		ITA256	Italyanca II	3	0	4,0
ALM357	Almanca III	3 0	4,0		MUH402	Engineering Ethics	2	0	3,0
ALM358	Almanca IV	3 0	4,5		MUH404	Innovation Management	3	0	3,0
ARK108	Arkeoloji	$2 \mid 0$	2,0		MUZ151	Muzigin Tarihcesi	2	0	3,0
BEO155	Beden Egitimi	$2 \mid 0$	2,0		MUZ157	Turk Sanat Tarihi	2	0	2,0
BIM411	Decision Support Systems	3 0	3,0		MUH151	Introduction to Accounting	3	0	4,5
FOT202	Fotografcilik	2 0	3,0		NUM301	Numerical Methods	3	0	3,5
FRA255	Fransizca I	3 0	4,0		PSI102	Psychology	3	0	3,5
FRA256	Fransizca II	3 0	4,0		PZL302	Marketing Management	3	0	4,5
HUK458	Sinai Haklar Sistemi ve Teknolojik	3 0	3,0		RUS255	Rusca I	3	0	4,0
	Gelisme				RUS256	Rusca II	3	0	4,0
ILT201	Interpersonal Communication		4,5		SNT155	Sanat Tarihi	2	0	2,0
ISN309	Mass Media		3,0	-1	THU203	Topluma Hizmet Uygulamalari	0	2	3,0
ISL101	Introduction to Business		4,5		TIY121	Tiyatroya Giris	2	0	3,0
ISL301	Human Resources Management		4,0		TIY152	Tiyatro	2	0	2,5
ISL321	Uygulamali Girisimcilik	3 1	- , -		TIY308	Cumhuriyet Donemi Turk Tiyatrosu	2	0	3,0
IKT151	Economics		3,0		TUR120	Turk Isaret Dili	3	0	3,0
IKT356	Engineering Economics	+ +	4,5	1	ESTU101	Universite Hayatina Giriş	0	1	2,0
ISP151	Ispanyolca I	-	4,0	1	ESTU102	Negotiation Techniques	2	0	3,0
ISP152	Ispanyolca II	-	4,0		ESTU103	Seramik Tasarim Surecleri	2	1	3,0
	Fotografik Bakis	2 1	3,0		ESTU104	Akademik Basari ve Yasam Becerileri	2	1	3,0
	Bilgisayar Destekli Tasarim I		3,0	-1	ESTU111	Gonulluluk Calismalari	1	2	4,0
	Bilgisayar Destekli Tasarim II		3,0		ESTU112	Herkes Icin Siber Guvenlik	2	0	2,0
	Kavramlarla Gorsel Dusunme		3,0	-	ESTU113	Tasarim Odakli Dusunme	3	0	2,0
ESTU119		-	3,0		ESTU114	Gorsel Dusunme	3	0	3,0
ESTU120	,		3,0	<b>=</b>	ESTU121	Piyano	3	1	3,0
ISL475	Tekno-Girisimcilik		4,0		ESTU122	Gitar	3	1	3,0
ILT419	Beden Dili ve Diksiyon		5,0		JAP301	Japonca I	4	0	4,0
ESTU106	Proje Yonetimi	2 1	3,0		JAP302	Japonca II	4	0	4,0
					ESTU401	Profesyonel Hayata Gecis	1	1	2,0