İstanbul Gedik   University
Faculty of Engineering
Department of Software Engineering
(100% English)

YEAR ONE

1st Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
SEN101	Introduction to Software Engineering	2	2	0	3	4	
MATH111	Calculus-I	3	2	0	4	6	
PHY101	Physics-I	3	0	2	4	6	
CHE111	General Chemistry	3	0	2	4	6	
ENG101	English-I	3	0	0	3	3	
RPSC 109	Positive Phychology and Communication Skills	3	0	0	3	5	
UCUL 101	University Culture-I	0	2	0	1	1	
Total Credits		**17**	**6**	**4**	**22**	**31**	

2nd Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite
SENC102	Introduction to Algorithms and Programming	2	0	2	3	4	
MATH104	Discrete Mathematics	3	0	0	3	4	
MATH112	Calculus-II	3	2	0	4	6	
PHY102	Physics-II	3	0	2	4	6	
ENG102	English-II	3	0	0	3	3	
MATH210	Linear Algebra	2	0	2	3	5	
UCUL 102	University Culture-II	0	2	0	1	1	
Total Credits		**16**	**4**	**6**	**21**	**29**	

YEAR TWO

3rd Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite

4th Term

Code	Course Name	T	P	L	C	ECTS	Prerequisite

Code	Course Name	T	P	L	C	ECTS	Prerequisite		Code	Course Name	T	P	L	C	ECTS	Prerequisite
SEN201	Software Requirements Analysis	3	0	0	3	6			SEN202	Software Design and Architecture	3	0	0	3	6	
SENC201	Object Oriented Programming-I	2	0	2	3	4			SEN204	Software Construction	2	0	2	3	5	
SENC205	Data Structures	2	0	2	3	5	SENC102		SENC202	Object Oriented Programming-II	2	0	2	3	4	
SENC207	Computer Architecture	3	0	0	3	4			MATH230	Statistics and Probability	3	0	0	3	5	
MATH220	Differential Equations	2	2	0	3	5			TUR102	Turkish Language-II	2	0	0	2	3	
TUR101	Turkish Language-I	2	0	0	2	3			ATA102	Principles of Atatürk and History of Revolutions-II	2	0	0	2	3	
ATA101	Principles of Atatürk and History of Revolutions-I	2	0	0	2	3			SEN284	Summer Practice-I	0	0	0	0	5	
Total Credits		16	2	4	19	30			Total Credits		14	0	4	16	31	
YEAR THREE																
5th Term									6th Term							
Code	Course Name	T	P	L	C	ECTS	Prerequisite		Code	Course Name	T	P	L	C	ECTS	Prerequisite
SEN301	Software Validation and Testing	2	0	2	3	5			SEN302	Software Project Management	2	0	2	3	5	
SENC301	Database Management Systems	2	0	2	3	5			MATH302	Numerical Analysis	3	0	0	3	6	
SENC307	Operating Systems	2	0	2	3	4			XXXXXX	Social Elective - I	3	0	0	3	5	
SENXXX	Departmental Elective - I *(Project Based)*	3	0	0	3	5			SENXXX	Departmental Elective - II (Project Based)	3	0	0	3	5	

Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
XXXXXX	Field Elective - I	3	0	0	3	5		FAC410	Interdisciplinary Design Project	3	0	0	3	5	
XXXXXX	Field Elective - II	3	0	0	3	5		SEN384	Summer Practice-II	0	0	0	0	5	
Total Credits		15	0	6	18	29		Total Credits		14	0	2	15	31	
YEAR FOUR															
7th Term								8th Term							
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
SEN491	Graduation Project	2	0	0	2	8		SEN492	Graduation Thesis	0	0	4	2	10	SENC491
SENXXX	Departmental Elective - III	3	0	0	3	5		SENXXX	Departmental Elective - V	3	0	0	3	5	
SENXXX	Departmental Elective - IV	3	0	0	3	5		SENXXX	Departmental Elective - VI	3	0	0	3	5	
SENC413	Computer Networks	3	0	0	3	5		XXXXXX	Field Elective - IV	3	0	0	3	5	
XXXXXX	Field Elective - III	3	0	0	3	5		XXXXXX	Social Elective - II	3	0	0	3	5	
OHS 401	Occupational Health and Safety - I	2	0	0	2	2									
Total Credits		16	0	0	16	30		Total Credits		12	0	4	14	30	
2021-2022	Mezuniyet için Toplam Yerel Kredi	141													
	Toplam Teorik Saatler	120													
	Toplam Uygulama Saatleri	12													
	Toplam Laboratuvar Saatleri	30													

	Mezuniyet için AKTS Kredisi	241													
	Seçmeli Dersler AKTS Kredisi	65													
	% Seçmeli Ders AKTS	0													

Departmental Elective Courses								Elective Foreign Languages							
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
SEN303	Software Quality Assurance	3	0	0	3	5		CIN123	Chineese- I	3	0	0	3	5	
SEN305	Algorithms and Optimization Methods (Project Based)	3	0	0	3	5		RUS123	Russian - I	3	0	0	3	5	
SENC309	Web Programming	3	0	0	3	5									
SEN304	Software Engineering Ethics	3	0	0	3	5									
SEN306	Large Scale Software Development (Project Based)	3	0	0	3	5									
SENC304	Visual Programming	3	0	0	3	5									
SENC308	Mobile Programming	3	0	0	3	5									
SEN401	Human-Computer Interaction	3	0	0	3	5									
SEN403	Computer Games and Simulation	3	0	0	3	5									
SEN405	Rapid Application Development	3	0	0	3	5									
SENC311	Data Security	3	0	0	3	5									

SEN407	Knowledge Engineering	3	0	0	3	5										
SEN409	System Modeling and Simulation (Project Based)	3	0	0	3	5										
SEN402	Formal Methods in Software Engineering	3	0	0	3	5										
SEN404	Agile Methods in Software Development	3	0	0	3	5										
SEN406	Emerging Technologies (Project Based)	3	0	0	3	5										
SEN408	Analysis and Design of User Interfaces	3	0	0	3	5										
SENC410	Systems Programming	3	0	0	3	5										
SENC416	Compiler Design	3	0	0	3	5										
SEN412	Software and Systems Security	3	0	0	3	5										
SENC408	Network Security	3	0	0	3	5										
SENC305	Analysis of Algorithms	3	0	0	3	5										
SENC306	Digital Signal Processing	3	0	0	3	5										
SEN413	Data Mining and Applications (Project Based)	3	0	0	3	5										
SEN414	Artificial Intelligence and Applications (Project Based)	3	0	0	3	5										
SENC407	Image Processing	3	0	0	3	5										
SEN307	Programming with Pyton	3	0	0	3	5										