

<p> Üsküdar University Faculty of Engineering and Natural Sciences Department of Software Engineering 2022-2023 Academic Year (100% English) </p>
<p>YEAR ONE</p>

1st Term							2nd Term							
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS
SE101	Introduction to Software Engineering*	2	2	0	3	4		COME102	Introduction to Algorithms and Programming*	2	0	2	3	4
MATH101	Calculus I*	3	2	0	4	6		COME104	Discrete Mathematics	3	0	3	4	
PHYS101	Physics I*	3	0	2	4	6		MATH102	Calculus II*	3	2	0	4	6
CHEM101	General Chemistry I*	3	0	2	4	6		PHYS102	Physics II*	3	0	2	4	6
ENG101	English I	3	0	0	3	3		ENG102	English II	3	0	0	3	3
RPSC109	Positive Psychology and Communication Skills	3	0	0	3	5		MATH104	Basic Linear Algebra*	2	0	2	3	5
RCUL101	University Culture I*	0	2	0	1	1		RCUL102	University Culture II*	0	2	0	1	1
Total Credits		17	6	4	22	31		Total Credits		16	4	6	21	29

YEAR TWO							
3rd Term				4th Term			
Code	Course Name	T	P	L	C	ECTS	Prerequisite
SE201	Software Requirements Analysis	3	0	0	3	6	
COME201	Object Oriented Programming I*	2	0	2	3	4	
COME205	Data Structures*	2	0	2	3	5	COME102
COME207	Computer Architecture	3	0	0	3	4	
MATH203	Differential Equations*	2	2	0	3	5	
TURK101	Turkish Language I	2	0	0	2	3	
ATA101	Principles of Atatürk and History of Turkish Revolution-I	2	0	0	2	3	
RPRE104	Entrepreneurship and Project Culture	2	0	0	2	3	
Total Credits		18	2	4	21	33	

Code	Course Name	T	P	L	C	ECTS
SE202	Software Design and Architecture	3	0	0	3	6
SE204	Software Construction*	2	0	2	3	5
COME202	Object Oriented Programming II*	2	0	2	3	4
MATH204	Statistics	3	0	0	3	5
TURK102	Turkish Language II	2	0	0	2	3
ATA102	Principles of Atatürk and History of Turkish Revolution-II	2	0	0	2	3
SE284	Summer Practice I**	0	0	0	0	5
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
SE301	Software Validation and Testing*	2	0	2	3	5		SE302	Software Project Management*	2	0	2	3	5
COME301	Database Management Systems*	2	0	2	3	5		MATH302	Numerical Analysis	3	0	3	6	
COME307	Operating Systems*	2	0	2	3	4		XXXXXX	Social Elective II	3	0	3	5	
SEXXX	Departmental Elective I (Project Based)	3	0	0	3	5		SEXXX	Departmental Elective II (Project Based)	3	0	3	5	
XXXXXX	Field Elective I	3	0	0	3	5		XXXXXX	Field Elective II	3	0	3	5	
XXXXXX	Social Elective I	3	0	0	3	5		SE384	Summer Practice II**	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
SE491	Graduation Project	2	0	0	2	8		SE492	Graduation Thesis*	0	0	4	2	8
SEXXX	Departmental Elective III	3	0	0	3	5		SEXXX	Departmental Elective V	3	0	0	3	5
SEXXX	Departmental Elective IV	3	0	0	3	5		SEXXX	Departmental Elective VI	3	0	0	3	5
COME413	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 III	3	0	0	3	5
OHS401	Occupational Health and Safety I	2	0	0	2	2		OHS402	Occupational Health and Safety II	2	0	0	2	2
Total Credits		16	0	0	16	30		Total Credits		14	0	4	16	30

2022-2023	Total Course Credits for Graduation	145
	Total Theoretical Hours	124
	Total Practice Hours	12
	Total Laboratory Hours	30
	Total Course ECTS for Graduation	244
	Total Elective Courses ECTS	65
	Elective Course Ratio	27%

** These courses are under the Internship Course status.

Elective Course Pool							
Departmental Elective Courses							
Code	Course Name	T	P	L	C	ECTS	Prerequisite
SE303	Software Quality Assurance	3	0	0	3	5	
SE305	Algorithms and Optimization Methods (Project Based)	3	0	0	3	5	
COME309	Web Programming	3	0	0	3	5	
SE304	Software Engineering Ethics	3	0	0	3	5	
SE306	Large Scale Software Development (Project Based)	3	0	0	3	5	
COME304	Visual Programming	3	0	0	3	5	
COME308	Mobile Programming	3	0	0	3	5	
SE401	Human-Computer Interaction	3	0	0	3	5	
SE403	Computer Games and Simulation	3	0	0	3	5	
SE405	Rapid Application Development	3	0	0	3	5	
COME311	Data Security	3	0	0	3	5	
SE407	Knowledge Engineering	3	0	0	3	5	
SE409	System Modeling and Simulation (Project Based)	3	0	0	3	5	
SE402	Formal Methods in Software Engineering	3	0	0	3	5	
SE404	Agile Methods in Software Development	3	0	0	3	5	
SE406	Emerging Technologies (Project Based)	3	0	0	3	5	
SE408	Analysis and Design of User Interfaces	3	0	0	3	5	
COME410	Systems Programming	3	0	0	3	5	
COME416	Compiler Design	3	0	0	3	5	
SE412	Software and Systems Security	3	0	0	3	5	
COME408	Network Security	3	0	0	3	5	
COME305	Analysis of Algorithms	3	0	0	3	5	
COME306	Digital Signal Processing	3	0	0	3	5	
SE413	Data Mining and Applications (Project Based)	3	0	0	3	5	
SE414	Artificial Intelligence and Applications (Project Based)	3	0	0	3	5	
COME407	Image Processing	3	0	0	3	5	
SE307	Programming with Python	3	0	0	3	5	
SE415	Semantic Web Technologies	3	0	0	3	5	
SE308	Metaverse Technologies And Applications (Project Based)	3	0	0	3	5	

Social Elective Courses (Foreign Languages)							
Code	Course Name	T	P	L	C	ECTS	
ARB123	Arabic I	3	0	0	3	5	
ARB124	Arabic II	3	0	0	3	5	
CHN123	Chinese I	3	0	0	3	5	
CHN124	Chinese II	3	0	0	3	5	
ESP123	Spanish I	3	0	0	3	5	
ESP124	Spanish II	3	0	0	3	5	
FRN123	French I	3	0	0	3	5	
FRN124	French II	3	0	0	3	5	
GER123	German I	3	0	0	3	5	
GER124	German II	3	0	0	3	5	
RSN123	Russian I	3	0	0	3	5	
RSN124	Russian II	3	0	0	3	5	

Field Elective Courses

For Field Elective courses, any departmental elective course having appropriate credits from departments of Faculty of Engineering and Natural Sciences can be elected.

Social Elective Courses

For Social Elective courses, either foreign language course or course having appropriate credits from faculties can be elected.

