Üsküdar University Faculty of Engineering and Natural Sciences Department of Software Engineering 2025-2026 Academic Year

							YEAR ON								
1st Term									2nd Term						
Code	Course Name	Т	P	L	С	ECTS	Prerequisite		Course Name	Т	P	L	С		Prerequisite
SE101	Introduction to Software Engineering*	2	2	0	3	4		COME102	Introduction to Algorithms and Programming*	3	0	2	3	4	
MATH105	Calculus I*	3	2	0	4	7			DME104 Discrete Mathematics		0	0	3	4	
PHYS103	Physics I*	3	0	2	4	7		MATH106			2	0	4	7	
CHEM105	General Chemistry I*	3	0	2	4	7		PHYS104	Physics II*	3	0	2	4	7	
ENG103	English I	2	0	0	2	2		ENG104	English II	2	0	0	2	2	
RPSC109	Positive Psychology and Communication Skills	3	0	0	3	5		MATH104	Basic Linear Algebra*	2	0	2	3	5	
RCUL103	University Culture I****	0	2	0	1	4		RCUL104	University Culture II****	0	2	0	1	4	
Total Credits		16	6	4	21	36		Total Credits		15	4	6	20	33	
							YEAR TW	0							
	3rd Term							4th Term							
Code	Course Name	T	P	L	С	ECTS	Prerequisite		Course Name	T	P	L	C		Prerequisite
SE201	Software Requirements Analysis	3	0	0	3	6		SE202	Software Design and Architecture	3	0	0	3	6	
COME201	Object Oriented Programming I*	2	0	2	3	4		SE204	Software Construction*	2	0	2	3	5	
COME205	Data Structures*	2	0	2	3	5	COME102	COME202	Object Oriented Programming II*	3	0	2	3	4	
COME207	Computer Architecture	3	0	0	3	4		MATH204	Statistics		0	0	3	5	
MATH203	Differential Equations*	2	2	0	3	5		TURK104	Turkish Language II		0	0	2	2	
TURK103	Turkish Language I	2	0	0	2	2		ATA104	Principles of Atatürk and History of Turkish Revolution-II		0	0	2	2	
ATA103	Principles of Atatürk and History of Turkish Revolution-I	2	0	0	2	2		SE284	Summer Practice I**		0	0	0	5	
RPRE104	Entrepreneurship and Project Culture	2	0	0	2	3									
Total Credits		18	2	4	21	31		Total Credits		14	0	4	16	29	
							YEAR THR	EE							
	5th Term	6th Term													
Code	Course Name	T	P	L	С	ECTS	Prerequisite		Course Name	T	P	L	С		Prerequisite
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			0	0	3	6	
COME307	Operating Systems*	2	0	2	3	4		XXXXXX			0	0	3	5	
SEXXX	Project I***	3	0	0	3	5		SEXXX	Project II***		0	0	3	5	
XXXXXX	Field Elective I	3	0	0	3	5		XXXXXX	Field Elective II		0	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	
			IR												
7th Term								8th Term							
Code	Course Name	Т	P	L	С	ECTS	Prerequisite	Code	Course Name	Т	Р	L	С	ECTS	Prerequisite
SE491	Graduation Project	2	0	0	2	8	<u> </u>	SE492	Graduation Thesis*	0	0	4	2	8	SE 491
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	
		+ -	Ť	Ť	+ -	Ť		OHS404	Occupational Health and Safety	4	0	0	4	4	
									Occupational recurs and surety	1	Ť	T .	1	1	
Total Credits		14	0	0	14	28		Total Credits		16	0	4	18	32	
	Total Course Credits for Graduation		1	43		1			* These courses are under the Applied Course status.	1					

	Total Course Credits for Graduation	143
	Total Theoretical Hours	122
	Total Practice Hours	12
2025-2026	Total Laboratory Hours	30
	Total Course ECTS for Graduation	249
	Total Elective Courses ECTS	73
	Elective Course Patio	29

* These courses are under the Applied Course status.							
** These courses are under the Internship Course status.							
*** These courses are project based courses.							
****These courses are in the elective course status.							

						Elective	Course Pool	
Departmental Elective Courses	т	Р	L	С	ECTS	Prerequisite		Social Elective Courses (Foreign Languages)
COME304 Visual Programming	3	0	0	3	5			ARB123 Arabic I
COME305 Analysis of Algorithms	3	0	0	3	5			ARB124 Arabic II
COME306 Digital Signal Processing	3	0	0	3	5			CHN123 Chinese I
COME308 Mobile Programming	3	0	0	3	5			CHN124 Chinese II
COME309 Web Programming	3	0	0	3	5			ESP123 Spanish I
COME311 Data Security	3	0	0	3	5			ESP124 Spanish II
COME407 Image Processing	3	0	0	3	5			FRN123 French I
COME408 Network Security	3	0	0	3	5			FRN124 French II
COME410 Systems Programming	3	0	0	3	5			GER123 German I
COME416 Compiler Design	3	0	0	3	5			GER124 German II
SE303 Software Quality Assurance	3	0	0	3	5			RSN123 Russian I
SE304 Software Engineering Ethics	3	0	0	3	5			RSN124 Russian II
SE401 Human-Computer Interaction	3	0	0	3	5			
SE402 Formal Methods in Software Engineering	3	0	0	3	5			For Field Elective courses, any departme
SE403 Computer Games and Simulation	3	0	0	3	5			departments of Faculty of Er
SE404 Agile Methods in Software Development	3	0	0	3	5			departments of racuity of Er
SE405 Rapid Application Development	3	0	0	3	5			
SE407 Knowledge Engineering	3	0	0	3	5			
SE411 Cloud Computing	3	0	0	3	5			
SE412 Software and Systems Security	3	0	0	3	5			
SE415 Semantic Web Technologies	3	0	0	3	5			
SE419 Additive Manufacturing Engineering	3	0	0	3	5			
SE421 Prompt Engineering	3	0	0	3	5			Courses in Project I and Project
Project I and II - Courses in Project I and Project II elective pools will be	cond	ucted	project	based				
SE305 Algorithms and Optimization Methods	3	0	0	3	5			
SE306 Large Scale Software Development	3	0	0	3	5			
SE307 Programming with Python	3	0	0	3	5			
SE308 Metaverse Technologies And Applications	3	0	0	3	5			1
SE309 Al and Data Science for Innovation in Helath Science	3	0	0	3	5			1
SE406 Emerging Technologies	3	0	0	3	5			1
SE408 Analysis and Design of User Interfaces	3	0	0	3	5			1
SE409 System Modeling and Simulation	3	0	0	3	5			1
SE410 Theoretical and Computational Neuroscience	3	0	0	3	5]
SE413 Data Mining and Applications	3	0	0	3	5			1
SE414 Artificial Intelligence and Applications	3	0	0	3	5			7
SE416 Data Science	3	0	0	3	5			1
SE417 Digital Game Development and Application Fundamentals	3	0	0	3	5			

T P L C ECTS Prerequisite
3 0 0 3 5
3 0 0 3 5
3 0 0 3 5
3 0 0 3 5
3 0 0 3 5
3 0 0 3 5
3 0 0 3 5
5 CHN123
3 0 0 3 5
5 ESP123
3 0 0 3 5
7 FRN123
3 0 0 3 5
7 FRN123 For Field Elective courses, any departmental elective course having appropriate credits from other departments of Faculty of Engineering and Natural Sciences can be elected.

Courses in Project I and Project II elective pools will be conducted project based