

Üsküdar University
Faculty of Engineering and Natural Sciences
Department of Computer Engineering
2022-2023 Academic Year
(100% English)
YEAR ONE

1st Term							2nd Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
COME103	Introduction to Computer Engineering	3	0	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	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		MATH104	Basic Linear Algebra*	2	0	2	3	5	
ENG101	English-I	3	0	0	3	3		PHYS102	Physics II*	3	0	2	4	6	
RPSC109	Positive Psychology and Communication Skills	3	0	0	3	5		ENG102	English II	3	0	0	3	3	
RCUL101	University Culture I*	0	2	0	1	1		RCUL102	University Culture II*	0	2	0	1	1	
Total Credits		18	4	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	Code	Course Name	T	P	L	C	ECTS	Prerequisite
COME205	Data Structures*	2	0	2	3	5	COME102	COME204	Logic Circuits*	3	0	2	4	6	
COME209	Introduction to Signals and Systems*	2	2	0	3	5	MATH101/2	COME206	Object Oriented Programming*	3	0	2	4	6	COME205
COME215	Electronic Circuits*	3	0	2	4	6	PHYS102	COMEXXX	Departmental Elective I	3	0	0	3	5	
MATH203	Differential Equations*	2	2	0	3	5		MATH204	Statistics	3	0	0	3	5	
RPRE104	Entrepreneurship and Project Culture	2	0	0	2	3		TURK102	Turkish Language II	2	0	0	2	3	
TURK101	Turkish Language I	2	0	0	2	3		ATA102	Principles of Atatürk and History of Turkish Revolution II	2	0	0	2	3	
ATA101	Principles of Atatürk and History of Turkish Revolution I	2	0	0	2	3		COME284	Summer Practice I**	0	0	0	0	5	
Total Credits		15	4	4	19	30		Total Credits		16	0	4	18	33	

YEAR THREE

5th Term							6th Term								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
COME301	Database Management Systems*	2	0	2	3	5		COME302	Operating Systems	3	0	0	3	5	COME205
COME305	Analysis of Algorithms	3	0	0	3	5	COME205	COME322	Microprocessors*	2	0	2	3	5	COME315
COME315	Computer Architecture	3	0	0	3	5	COME204	COMEXXX	Departmental Elective III (Project Based)	3	0	0	3	5	
COMEXXX	Departmental Elective II (Project Based)	3	0	0	3	5		MATH302	Numerical Analysis	3	0	0	3	6	
XXXXXX	Field Elective I	3	0	0	3	5		COME384	Summer Practice II**	0	0	0	0	5	
XXXXXX	Elective (2nd Foreign Language)	3	0	0	3	5		XXXXXX	Social Elective I	3	0	0	3	5	
Total Credits		17	0	2	18	30		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
COME413	Computer Networks	3	0	0	3	5		COME492	Graduation Thesis*	0	0	4	2	8	COME491
COME491	Graduation Project	2	0	0	2	7		COMEXXX	Departmental Elective V	3	0	0	3	5	
COMEXXX	Departmental Elective IV	3	0	0	3	5		COMEXXX	Departmental Elective VI	3	0	0	3	5	
XXXXXX	Field Elective II	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	
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	29		Total Credits		14	0	4	16	30	

Total Course Credits for Graduation	145
Total Course ECTS for Graduation	243
Total Elective Courses ECTS	65
Elective Course Ratio	27%

COME284 Hardware based summer practice
COME384 Software based summer practice
* These courses are under the Applied Course status.
** These courses are under the Internship Course status.

Elective Course - Pool

Departmental Elective Courses							Social Elective Courses (Foreign Languages)								
Code	Course Name	T	P	L	C	ECTS	Prerequisite	Code	Course Name	T	P	L	C	ECTS	Prerequisite
COME218	Programming Languages	3	0	0	3	5		ARB123	Arabic I	3	0	0	3	5	
COME306	Digital Signal Processing	3	0	0	3	5		ARB124	Arabic II	3	0	0	3	5	ARB123
COME310	Real Time Systems	3	0	0	3	5		CHN123	Chinese I	3	0	0	3	5	
COME311	Data Security	3	0	0	3	5		CHN124	Chinese II	3	0	0	3	5	CHN123
COME312	User Interface Design	3	0	0	3	5		ESP123	Spanish I	3	0	0	3	5	
COME313	Mathematical Modelling	3	0	0	3	5		ESP124	Spanish II	3	0	0	3	5	ESP123
COME314	Introduction to Control Systems	3	0	0	3	5		FRN123	French I	3	0	0	3	5	
COME317	Intelligent Robotics	2	0	2	3	5		FRN124	French II	3	0	0	3	5	FRN123
COME318	Computer Graphics	3	0	0	3	5		GER123	German I	3	0	0	3	5	
COME319	Mobile Programming	2	0	2	3	5		GER124	German II	3	0	0	3	5	GER123
COME324	Visual Programming	2	0	2	3	5		RSN123	Russian I	3	0	0	3	5	
COME309	Web Programming	3	0	0	3	5		RSN124	Russian II	3	0	0	3	5	RSN123
COME401	Data Mining	3	0	0	3	5									
COME402	Artificial Neural Networks	3	0	0	3	5									
COME403	Software Engineering	3	0	0	3	5									
COME404	Fuzzy Controllers	3	0	0	3	5									
COME405	Artificial Intelligence	3	0	0	3	5									
COME406	Parallel Computing	3	0	0	3	5									
COME407	Image Processing	3	0	0	3	5									
COME408	Network Security	3	0	0	3	5									
COME409	Automata Theory	3	0	0	3	5									
COME410	Systems Programming	3	0	0	3	5									
COME411	System Analysis and Design	3	0	0	3	5									
COME412	Embedded Systems	3	0	0	3	5									
COME414	Optimization Techniques	3	0	0	3	5									
COME416	Compiler Design	3	0	0	3	5									
COME418	Natural Language Processing	3	0	0	3	5									
COME420	Biomedical and Laboratory Instrumentation	3	0	0	3	5									

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

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