

## SOFTWARE ENGINEERING DEPARTMENT CURRICULUM

### 1<sup>ST</sup> YEAR FALL TERM COURSES

ID	Code	Name of the Course	Prerequisite	Type of the Course	In-Class Hours (T+P)	Credit	ECTS Credit
	ENL101	ENGLISH I	-	Compulsory	3+0	3	3
	HIS101 TUR101	HISTORY * TURKISH LANGUAGE*	-	Compulsory	2+0 2+0	2 2	2 2
	COM105	COMPUTING FOUNDATIONS	-	Compulsory	3+2	4	8
	COM103	INTRODUCTION TO PROFESSION	-	Compulsory	2+0	0	3
	ENG121	PHYSICS I	-	Compulsory	3+0	3	5
	ENG131	PHYSICS I LAB	-	Compulsory	0+2	1	2
	MAT101	CALCULUS I	-	Compulsory	3+2	4	7
				<b>Total Credit: 17</b>		<b>Total ECTS Credit: 30</b>	

### 1<sup>ST</sup> YEAR SPRING TERM COURSES

ID	Code	Name of the Course	Prerequisite	Type of the Course	In-Class Hours (T+P)	Credit	ECTS Credit
	ENL102	ENGLISH II	ENL101	Compulsory	3+0	3	3
	COM102	COMPUTER PROGRAMMING	COM105	Compulsory	3+2	4	7
	ENG122	PHYSICS II	ENG121	Compulsory	3+0	3	6
	ENG132	PHYSICS II LAB	ENG131	Compulsory	0+2	1	2
	MAT102	CALCULUS II	MAT101	Compulsory	3+2	4	7
	MAT104	LINEAR ALGEBRA	MAT101	Compulsory	3+0	3	5
				<b>Total Credit: 18</b>		<b>Total ECTS Credit: 30</b>	

### 2<sup>ND</sup> YEAR FALL TERM COURSES

ID	Code	Name of the Course	Prerequisite	Type of the Course	In-Class Hours (T+P)	Credit	ECTS Credit
	COM203	DIGITAL LOGIC DESIGN	-	Compulsory	3+2	4	6
	MAT203	DISCRETE MATHEMATICS	MAT102	Compulsory	3+0	3	5
	COM205	DATA STRUCTURES	COM102	Compulsory	3+2	4	7
	MAT201	ORDINARY DIFFERENTIAL EQUATIONS	MAT101	Compulsory	3+2	4	5
	SEN201	INTRODUCTION TO THE SOFTWARE ENGINEERING	-	Compulsory	3+0	3	7
				<b>Total Credit: 18</b>		<b>Total ECTS Credit: 30</b>	

### 2<sup>ND</sup> YEAR SPRING TERM COURSES

ID	Code	Name of the Course	Prerequisite	Type of the Course	In-Class Hours (T+P)	Credit	ECTS Credit
	COM202	OPERATING SYSTEMS	COM102	Compulsory	3+0	3	7
	COM204	OBJECT ORIENTED PROGRAMMING I	COM102	Compulsory	3+2	4	8
	MAT202	ENGINEERING MATHS	MAT101	Compulsory	3+0	3	5
	MAT204	PROBABILITY&STATISTIC METHODS	MAT101	Compulsory	3+0	3	5

	SEN202	SOFTWARE REQUIREMENTS ANALYSIS AND SPECIFICATION	-	Compulsory	3+0	3	5
				<b>Total Credit: 16</b>		<b>Total ECTS Credit: 30</b>	

### 3<sup>rd</sup> YEAR FALL TERM COURSES

ID	Code	Name of the Course	Prerequisite	Type of the Course	In-Class Hours (T+P)	Credit	ECTS Credit
	COM303	ANALYSIS OF ALGORITHMS	COM102	Compulsory	3+0	3	4
	COM305	DATABASE MANAGEMENT SYSTEMS	COM205	Compulsory	3+2	4	7
	COM307	SYSTEMS PROGRAMMING	COM202	Compulsory	3+0	3	4
	SEN305	SOFTWARE DESIGN AND ARCHITECTURE	SEN202	Compulsory	3+0	3	5
	COM315	OBJECT ORIENTED PROGRAMMING II	COM102	Compulsory	3+2	4	8
	IUAXX1	FREE ELECTIVE I		Elective	3+0	3	2
				<b>Total Credit: 20</b>		<b>Total ECTS Credit: 30</b>	

### 3<sup>rd</sup> YEAR SPRING TERM COURSES

ID	Code	Name of the Course	Prerequisite	Type of the Course	In-Class Hours (T+P)	Credit	ECTS Credit
	COM306	COMPUTER NETWORKS	-	Compulsory	3+0	3	5
	COM302	PRINCIPLES OF PROGRAMMING LANGUAGES	COM204	Compulsory	3+2	4	7
	SEN308	SOFTWARE QUALITY ASSURANCE AND TESTING	COM102	Compulsory	3+0	3	5
	SEN312	HUMAN COMPUTER INTERACTION	-	Compulsory	3+0	3	6
	COMXX1	TECHNICAL ELECTIVE I	-	Elective	3+0	3	5
	IUAXX2	FREE ELECTIVE II	-	Elective	3+0	3	2
				<b>Total Credit: 19</b>		<b>Total ECTS Credit: 30</b>	

### 4<sup>th</sup> YEAR FALL TERM COURSES

ID	Code	Name of the Course	Prerequisite	Type of the Course	In-Class Hours (T+P)	Credit	ECTS Credit
	ECO441	ENGINEERING ECONOMICS	-	Compulsory	3+0	3	3
	BUS441	STRATEGIC PLANNING AND MANAGEMENT	-	Compulsory	3+0	3	4
	COM410	SUMMER TRAINING	-	Compulsory	0+0	0	1
	COM401	GRADUATION PROJECT I	-	Compulsory	0+3	1	10
	IUAXX3	FREE ELECTIVE III	-	Elective	3+0	3	2
	COMXX2	TECHNICAL ELECTIVE II	-	Elective	3+0	3	5
	COMXX3	TECHNICAL ELECTIVE III	-	Elective	3+0	3	5
				<b>Total Credit: 16</b>		<b>Total ECTS Credit: 30</b>	

### 4<sup>th</sup> YEAR SPRING TERM COURSES

ID	Code	Name of the Course	Prerequisite	Type of the Course	In-Class Hours (T+P)	Credit	ECTS Credit
	ENG444	ENGINEERING ETHICS	-	Compulsory	3+0	3	5
	COM402	GRADUATION PROJECT II	COM401	Compulsory	0+6	3	10
	COMXX4	TECHNICAL ELECTIVE IV	-	Elective	3+0	3	5
	COMXX5	TECHNICAL ELECTIVE V	-	Elective	3+0	3	5
	COMXX6	TECHNICAL ELECTIVE VI	-	Elective	3+0	3	5
				<b>Total Credit: 15</b>		<b>Total ECTS Credit: 30</b>	

TECHNICAL ELECTIVE COURSES					
ID	Code	Name of the Course	In-Class Hours (T+P)	Credit	ECTS Credit
	COM304	MICROPROCESSOR SYSTEMS	3+2	4	5
	COM309	SIGNALS AND SYSTEMS	3+0	3	5
	COM206	DIGITAL SYSTEM DESIGN	3+0	3	5
	COM451	PRINCIPLES OF DIGITAL IMAGE PROCESSING	3+0	3	5
	COM453	ARTIFICIAL NEURAL NETWORKS	3+0	3	5
	COM455	INTERNET PROGRAMMING	3+0	3	5
	COM457	AUTOMATA THEORY	3+0	3	5
	COM459	ADVANCED COMPUTER GRAPHICS	3+0	3	5
	COM461	DISCRETE EVENT SYSTEM SIMULATION	3+0	3	5
	COM452	ARTIFICIAL INTELLIGENCE	3+0	3	5
	COM454	WIRELESS COMMUNICATION	3+0	3	5
	COM456	JAVA PROGRAMMING	3+0	3	5
	COM458	MODERN PROGRAMMING PLATFORM	3+0	3	5
	COM460	DATABASE SECURITY	3+0	3	5
	COM463	PATTERN RECOGNITION	3+0	3	5
	EEN405	DIGITAL SIGNAL PROCESSING	3+0	3	5
	SEN408	SOFTWARE PROJECT MANAGEMENT	3+0	3	5