

## Software Engineering Curriculum

### First Year: Fall Semester

# of crs.	R.code	Crs.Code	Course Name	Prerequisite	Lect.	Lab/Tur	Cr.	ECTS
1	29711	CMPE 107	Foundations of Computer Engineering	-	4	1	4	7
2	29712	MATH 163	Discrete Mathematics	-	3	1	3	5
3	29713	ENGL 191	Communication in English I	-	3	1	3	5
4	29714	MATH 151	Calculus I	-	4	1	4	7
5	29715	PHYS 101	Physics I	-	4	1	4	7
S.Tot =5					Sem. Cr. Total :		18	31
					Cr. Sub-Total :		18	30

### First Year: Spring Semester

# of crs.	R.code	Crs.Code	Course Name	Prerequisite	Lect.	Lab/Tur	Cr.	ECTS
-	29721	CMSE 100	Introduction to Software Engineering	-	-	2	-	1
1	29722	CMPE 112	Programming Fundamentals	CMPE 107	4	1	4	7
2	29723	ENGL 192	Communication in English II	ENGL 191	3	1	3	5
3	29724	MATH 152	Calculus II	MATH 151	4	1	4	7
4	29725	PHYS 102	Physics II	-	4	1	4	7
5	29726	TUSL 181	Turkish as a second Language (other Students)	-	2	-	2	2
		HIST 280	History of Turkish Reforms (TC/TRNC)					
S.Tot =5					Sem. Cr. Total :		17	29
					Cr. Sub-Total :		35	60

### Second Year: Fall Semester

# of crs.	R.code	Crs.Code	Course Name	Prerequisite	Lect.	Lab/Tur	Cr.	ECTS
1	29731	CMSE 201	Fundamentals of Software Engineering	CMPE 107	4	1	4	7
2	29732	CMPE 211	Object-Oriented Programming	CMPE 112	4	1	4	7
3	29733	CMPE 231	Data Structures	CMPE 112	4	1	4	7
4	29734	MATH 241	Linear Algebra and Ordinary Diff. Equations	MATH 151	4	1	4	6
5	29735	UE-01	Basic Science (CHEM 101, BIOL 105, SCIE 130, etc.)	-	3 4	-	3 4	5
S.Tot =5					Sem. Cr. Total :		19 20	32
					Cr. Sub-Total :		54 55	92

### Second Year: Spring Semester

# of crs.	R.code	Crs.Code	Course Name	Prerequisite	Lect.	Lab/Tur	Cr.	ECTS
1	29741	CMSE 222	Introduction to Computer Organization	MATH 163	4	1	4	7
2	29742	CMPE 242	Operating Systems	CMPE 112	4	1	4	7
3	29743	MATH 373	Numerical Analysis for Engineers	MATH 241	3	1	3	5
4	29744	ENGL 201	Communication Skills	ENGL 192	3	1	3	4
5	29745	UE-02	Uni. Elective II- Arts & Humanities	-	3	-	3	4
S.Tot =5					Sem. Cr. Total :		17	27
					Cr. Sub-Total :		70 71	119

### Third Year: Fall Semester

# of crs.	R.code	Crs.Code	Course Name	Prerequisite	Lect.	Lab/Tur	Cr.	ECTS
1	29751	CMSE 321	Software Req. Analysis & Specification	CMSE 201	4	1	4	7
2	29752	CMSE 353	Security of Software Systems	CMSE 201	4	1	4	7
3	29753	CMPE 371	Analysis of Algorithm	CMPE 231	4	1	4	6
4	29754	UE- 03	Uni. Elective III- Arts & Humanities	-	3	-	3	4
5	29755	MATH 322	Probability and Statistical Methods	MATH 151	3	1	3	5
S.Tot =5					Sem. Cr. Total :		18	29
					Cr. Sub-Total :		88 89	148

### Third Year: Spring Semester

# of crs.	R.code	Crs.Code	Course Name	Prerequisite	Lect.	Lab/Tur	Cr.	ECTS
1	29761	CMSE 322	Software Design	CMSE 321	4	1	4	7
2	29762	CMPE 318	Principles of Programming Languages	CMPE 211	4	1	4	6
3	29763	CMSE 346	Computer Networks & Communication	CMPE 242 + MATH 322	4	1	4	6
4	29764	CMPE 354	Database Management Systems	CMPE 231	4	1	4	7
5	29765	CMSE 326	Software Quality Assurance & Testing	CMSE 201	4	1	4	6
S.Tot =5					Sem. Cr. Total :		20	32
					Cr. Sub-Total :		108 109	180

### Fourth Year: Fall Semester

# of crs.	R.code	Crs.Code	Course Name	Prerequisite	Lect.	Lab/Tur	Cr.	ECTS
-	29771	CMSE 400	Summer Practice	-	-	-	0	1
-	29772	CMSE 405	Graduation Project I	-	1	-	1	1
1	29773	CMPE 471	Automata Theory	MATH 163	4	1	4	6
2	29774	CMSE 473	Software Process & Management	CMSE 321 + MATH 322	4	1	4	6
3	29775	CMPE 423	Embedded System Design	CMSE 222	4	1	4	6
4	29776	AE 01	Area Elective I	-	3 4	-	3 4	6
5	29777	AE 02	Area Elective II	-	3 4	-	3 4	6
S.Tot =5					Sem. Cr. Total :		19 21	32
					Cr. Sub-Total :		127 130	212

### Fourth Year: Spring Semester

# of crs.	R.code	Crs.Code	Course Name	Prerequisite	Lect.	Lab/Tur	Cr.	ECTS
1	29781	AE 03	Area Elective III	-	3 4	-	3 4	6
2	29782	AE 04	Area Elective IV	-	3 4	-	3 4	6
3	29783	CMSE 406	Graduation Project II	CMSE 405	3	1	3	8
4	29784	UE- 04	Uni. Elective IV (Restricted: ECON/MGMT/FIN/BANK/ACCT Fields)	-	3	-	3	4
5	29785	IENG 355	Ethics in Engineering	-	3	-	3	4
S.Tot =5					Sem. Cr. Total :		15 17	28
C.Tot =40					Cr. Sub-Total :		142 147	240