

Software Engineering Curriculum									
First Year: Fall Semester									
# of crs.	R.code	Crs.Code	Course Name	Prerequisite	Lect.	Lab/Tur	Cr.	ECTS	
1	29711	CMSE 107	Foundations of Computer Engineering	-	4	1	4	10	
2	29712	MATH 163	Discrete Mathematics	-	3	1	3	5	
3	29713	ENGL191	Communication in English I	-	3	1	3	4	
4	29714	MATH 151	Calculus I	-	4	1	4	6	
5	29715	PHYS 101	Physics I	-	4	1	4	6	
S.Tot =5							Sem. Cr. Total :	18	31
							Cr. Sub-Total :	18	31
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	CMSE 112	Programming Fundamentals	CMSE 107	4	1	4	10	
2	29723	ENGL192	Communication in English II	ENGL 191	3	1	3	4	
3	29724	MATH 152	Calculus II	MATH 151	4	1	4	6	
4	29725	PHYS 102	Physics II	-	4	1	4	6	
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	CMSE 107	4	1	4	8	
2	29732	CMSE 211	Object-Oriented Programming	CMSE 112	4	1	4	7	
3	29733	CMSE 231	Data Structures	CMSE 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	4	
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	8	
2	29742	CMPE 242	Operating Systems	CMSE 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	28
							Cr. Sub-Total :	71 72	120
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 351	Database Management Systems	CMSE 231	4	1	4	7	
3	29753	CMSE 371	Analysis of Algorithm	CMSE 231	4	1	4	7	
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	30
							Cr. Sub-Total :	89 90	150
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	6	
2	29762	CMSE 318	Principles of Programming Languages	CMSE 211	4	1	4	7	
3	29763	CMSE 344	Computer Networks	CMPE 242 + MATH 322	4	1	4	7	
4	29764	IENG 355	Ethics in Engineering	-	3	-	3	4	
5	29765	CMSE 326	Software Quality Assurance & Testing	CMSE 201	4	1	4	6	
S.Tot =5							Sem. Cr. Total :	19	30
							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	CMSE 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	CMSE 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	6	
4	29784	UE-04	Uni. Elective IV (Restricted: ECON/MGMT/FIN/BANK/ACCT Fields)	-	3	-	3	4	
5	29785	CMSE 456	Security of Computer Systems and Networks	CMSE 344	4	1	4	6	
S.Tot =5							Sem. Cr. Total :	16 18	28
C.Tot =40							Cr. Sub-Total :	143 148	240