

FACULTY OF TECHNOLOGY
SOFTWARE ENGINEERING DEPARTMENT
COURSE PLAN

FIRST YEAR					
CODE	COURSE TITLE	ECTS	H+T+L	C/E	LANGUAGE
FIRST SEMESTER					
AITB1001	Atatürk's Principles and History of Turkish Revolution - I	2	2+0+0	Compulsory	Turkish
TDB1001	Turkish Language - I	2	2+0+0	Compulsory	Turkish
YDB1001	English - I	3	3+0+0	Compulsory	English
YZM1001	Introduction Software Engineering	3	2+0+0	Compulsory	Turkish
YZM1003	Introduction to Programming and Algorithm	5	3+1+0	Compulsory	Turkish
YZM1005	Mathematics - I	5	4+0+0	Compulsory	Turkish
YZM1007	Computer Essentials	5	3+0+0	Compulsory	Turkish
YZM1009	Basic Physics	5	3+0+1	Compulsory	Turkish
First Semester Total		30	22+1+1		
SECOND SEMESTER					
AITB1000	Atatürk's Principles and History of Turkish Revolution - II	2	2+0+0	Compulsory	Turkish
TDB1000	Turkish Language - II	2	2+0+0	Compulsory	Turkish
YDB1004	English - II	2	2+0+0	Compulsory	English
YZM1000	Software Requirements Engineering	4	2+0+0	Compulsory	Turkish
YZM1002	Linear Algebra	5	3+0+0	Compulsory	Turkish
YZM1004	Mathematics - II	5	4+0+0	Compulsory	Turkish
YZM1006	Web Design And Programming	5	2+2+0	Compulsory	Turkish
YZM1010	Data Structures	5	2+2+0	Compulsory	Turkish
Second semester total		30	19+4+0		
FIRST YEAR TOTAL		60	41+5+1		
SECOND YEAR					
CODE	COURSE TITLE	ECTS	H+T+L	C/E	LANGUAGE
FIRST SEMESTER					
YDI2001	Reading and Writing in English	3	2+0+0	Compulsory	English
YZM2005	Differential Equations	5	4+0+0	Compulsory	Turkish
YZM2007	Object Oriented Programming	5	2+2+0	Compulsory	Turkish
YZM2011	Operating Systems	4	3+0+0	Compulsory	Turkish
YZM2017	Database and Management	5	2+2+0	Compulsory	Turkish
	2nd Grade-Fall-Social-I	4	2+0+0	Elective	Turkish
	2nd Grade-Fall-Social-II	4	2+0+0	Elective	Turkish
Elective Courses					
2nd Grade-Fall-Social-I Group Courses					
YZM2025	Developing Scientific Project	4	2+0+0	Elective	Turkish
USEC0005	General Sociology	4	2+0+0	Elective	Turkish

2nd Grade-Fall-Social-II Group Courses					
USEC0007	Personel Data Protection	4	2+0+0	Elective	Turkish
YZM2015	Engineering and IT Ethics	4	2+0+0	Elective	Turkish
MTH2027	Foundations of Entrepreneurship	4	2+0+0	Elective	Turkish
First Semester Total		30	17+4+0		
SECOND SEMESTER					
YZM2000	Probability and Statistics	5	3+1+0	Compulsory	Turkish
YZM2002	Microprocessors	5	2+0+2	Compulsory	Turkish
YZM2008	Discrete Mathematics	4	2+1+0	Compulsory	Turkish
YZM2010	Professional English	3	2+0+0	Compulsory	Turkish
YZM2016	Advanced Web Applications	5	2+2+0	Compulsory	Turkish
	2nd Grade-Spring-Social-I	4	2+0+0	Elective	Turkish
	2nd Grade-Spring-Social-II	4	2+0+0	Elective	Turkish
Elective Courses					
2nd Grade-Spring-Social-I Group Lessons					
USEC0004	Professional Ethics	4	2+0+0	Elective	Turkish
YZM2020	Research Methods	4	2+0+0	Elective	Turkish
2nd Grade-Spring-Social-II Group Lessons					
YZM2006	Presentation Techniques	4	2+0+0	Elective	Turkish
USEC0012	Career Planning	4	2+0+0	Elective	Turkish
Second semester total		30	15+4+2		
SECOND YEAR TOTAL		60	32+8+2		
THIRD YEAR					
CODE	COURSE TITLE	ECTS	H+T+L	C/E	LANGUAGE
FIRST SEMESTER					
YZM3001	Formal Languages and Automata Teory	4	3+0+0	Compulsory	Turkish
YZM3007	Numerical Analysis	5	2+2+0	Compulsory	Turkish
YZM3009	System Programming	4	2+1+0	Compulsory	Turkish
YZM3017	Software Design and Architecture	5	3+1+0	Compulsory	Turkish
	3rd Grade-Fall Technical-1	4	2+0+0	Elective	Turkish
	3rd Grade-Fall Technical-2	4	2+0+0	Elective	Turkish
	3rd Grade-Fall Technical-3	4	2+0+0	Elective	Turkish
Elective Courses					
3rd Grade-Fall Technical-1 Group Courses					
YZM3027	Development of Mobile Application	4	2+0+0	Elective	Turkish
YZM3013	Script Languages	4	2+0+0	Elective	Turkish
YZM3037	Computer Systems Security	4	2+0+0	Elective	Turkish
3rd Grade-Fall Technical-2 Group Courses					
YZM3031	Information Security and Cryptology	4	2+0+0	Elective	Turkish
YZM3011	Human Computer Interaction	4	2+0+0	Elective	Turkish
3rd Grade-Fall Technical-3 Group Courses					
YZM3021	3D Modelling and Animation	4	2+0+0	Elective	Turkish
YZM3033	Concepts of Programming Languages	4	2+0+0	Elective	Turkish
YZM3035	Innovation and Product Design in Engineering	4	2+0+0	Elective	Turkish
First Semester Total		30	16+4+0		

SECOND SEMESTER					
YZM3002	Software Testing and Verification	4	2+0+1	Compulsory	Turkish
YZM3012	Artificial Intelligence	5	3+1+0	Compulsory	Turkish
YZM3014	Computer Networks	5	2+1+0	Compulsory	Turkish
	3rd Grade-SpringTechnical-I	4	2+0+0	Elective	Turkish
	3rd Grade-SpringTechnical-II	4	2+0+0	Elective	Turkish
	3rd Grade-SpringTechnical-III	4	2+0+0	Elective	Turkish
	3rd Grade-SpringTechnical-IV	4	2+0+0	Elective	Turkish
Elective Courses					
3rd Grade-Spring Technical-I Group Courses					
YZM3000	Compiler Design	4	2+0+0	Elective	Turkish
YZM3024	Mobile Programming	4	2+0+0	Elective	Turkish
3rd Grade-SpringTechnical-II Group Courses					
YZM3006	Database Management Systems	4	2+0+0	Elective	Turkish
YZM3022	Educational Software Design	4	2+0+0	Elective	Turkish
3rd Grade-SpringTechnical-III Group Courses					
YZM3032	Image Processing	4	2+0+0	Elective	Turkish
YZM3028	Embedded Systems	4	2+0+0	Elective	Turkish
3rd Grade-SpringTechnical-IV Group Courses					
YZM3034	Optimization Theory	4	2+0+0	Elective	Turkish
YZM3036	Big Data Analysis	4	2+0+0	Elective	Turkish
Second semester total		30	15+2+1		
THIRD YEAR TOTAL		60	31+6+1		
FOURTH YEAR					
CODE	COURSE TITLE	ECTS	H+T+L	C/E	LANGUAGE
FIRST SEMESTER					
YZM4001	Vocational Training II	3	0+2+0	Compulsory	Turkish
YZM4003	Professional Experience - I	3	0+2+0	Compulsory	Turkish
YZM4005	Workplace Application	20	1+4+0	Compulsory	Turkish
YZM4007	Design Project	4	0+3+0	Compulsory	Turkish
First Semester Total		30	1+11+0		
SECOND SEMESTER					
YZM4000	Graduation Thesis	6	0+2+0	Compulsory	Turkish
YZM4006	Software Quality Assurance	4	3+0+0	Compulsory	Turkish
YZM4022	Soft. Dev. Stand. and Project Management	4	3+0+0	Compulsory	Turkish
	4th Grade-SpringTechnical-I	4	2+0+0	Elective	Turkish
	4th Grade-SpringTechnical-II	4	2+0+0	Elective	Turkish
	4th Grade-SpringTechnical-III	4	2+0+0	Elective	Turkish
	4th Grade-SpringTechnical-IV	4	2+0+0	Elective	Turkish
Elective Courses					
4th Grade-Spring Technical-I Group Courses					
YZM4008	Data Mining	4	2+0+0	Elective	Turkish
4th Grade-Spring Technical-II Group Courses					
YZM4032	Meta - Heuristic Optimization	4	2+0+0	Elective	Turkish

4th Grade-Spring Technical-III Group Courses					
YZM4038	Deep Learning	4	2+0+0	Elective	Turkish
4th Grade-Spring Technical-IV Group Courses					
YZM4034	Cyber Security	4	2+0+0	Elective	Turkish
Fourth semester total		30	14+2+0		
FOURTH YEAR TOTAL		60	15+13+0		