

**DEPARTMENT OF COMPUTER ENGINEERING
UNDERGRADUATE CURRICULUM**

Abbreviations: T=Weekly hours: theoretical; P=Weekly hours: practice; ECTS= European Credit Transfer System

Semester-1					
Code	Course Title	T	P	ECTS	Status
COMP 1001	Introduction to Programming	3	2	4	Required
COMP 1003	Introduction to Computer Engineering Concepts	2	0	2	Required
COMP 1005	Ethics in Computer Science	3	0	3	Required
UNIV 1001	English I	3	0	4	Required
UNIV 1005	Calculus I	4	0	6	Required
UNIV 1015	Turkish Language & Literature I	2	0	2	Required
UNIV 1017	Occupational Health & Safety	2	0	3	Required
UNIV 1019	Physics I	3	2	6	Required
TOTAL CREDIT				30	

Semester-3					
Code	Course Title	T	P	ECTS	Status
COMP 2001	Digital Design	3	2	6	Required
COMP 2003	Object Oriented Programming with Java	3	2	6	Required
COMP 2005	Discrete Mathematics	3	0	6	Required
EENG 2027	Fundamentals of Electronics	3	2	6	Required
UNIV 2005	Scientific Technical Writing and Presentation	2	0	4	Required
UNIV 2007	Principles of Atatürk & History of Turkish Revolution I	2	0	2	Required
TOTAL CREDIT				30	

Semester-5					
Code	Course Title	T	P	ECTS	Status
COMP 3001	Database Management System	3	2	5	Required
COMP 3003	Software Engineering	3	0	5	Required
COMP 3005	Computer Organization	3	0	5	Required
COMP 3007	Contemporary Programming Languages	3	0	5	Required
	Non-Technical ELECTIVE	3	0	5	Elective
	ELECTIVE	3	0	5	Elective
TOTAL CREDIT				30	

Semester-7					
Code	Course Title	T	P	ECTS	Status
COMP 4001	Distributed System	3	0	5	Required
COMP 4003	Design and Analysis of Algorithms	3	0	5	Required
COMP 4901	Graduation Project I	1	4	5	Required
	ELECTIVE	-	-	15	Elective
TOTAL CREDIT				30	

Semester-2					
Code	Course Title	T	P	ECTS	Status
COMP 1002	Advanced Python	3	2	6	Required
UNIV 1002	English II	3	0	4	Required
UNIV 1006	Calculus II	4	0	6	Required
UNIV 1016	Turkish Language & Literature II	2	0	2	Required
UNIV 1020	Physics II	2	2	6	Required
UNIV 1024	Carrier Planning	2	0	2	Required
UNIV 2014	Linear Algebra	3	0	4	Required
TOTAL CREDIT				30	

Semester-4					
Code	Course Title	T	P	ECTS	Status
COMP 2002	Data Structures with Java	3	2	6	Required
COMP 2004	Programming Languages	3	0	6	Required
COMP 2800	Practical Training I	0	0	4	Required
UNIV 2003	Probability and Statistics	3	0	4	Required
UNIV 2008	Principles of Atatürk & History of Turkish Revolution I	2	0	2	Required
UNIV 2017	Differential Equation	4	0	6	Required
	Non-Technical Elective	2	0	2	Elective
TOTAL CREDIT				30	

Semester-6					
Code	Course Title	T	P	ECTS	Status
COMP 3002	Computer Networks	3	0	5	Required
COMP 3004	Operating System	3	0	5	Required
COMP 3006	Secure Software Development	3	0	5	Required
COMP 3800	Practical Training II	0	0	5	
	ELECTIVE	3	0	5	Elective
	ELECTIVE	3	0	5	Elective
TOTAL CREDIT				30	

Semester-8					
Code	Course Title	T	P	ECTS	Status
COMP 4002	Automata Theory and Formal Languages	3	0	5	Required
COMP 4902	Graduation Project II	3	0	5	Required
	ELECTIVE	-	-	20	Elective
TOTAL CREDIT				30	

TOTAL ECTS	240		
COMPULSORY ECTS	183	76%	
ELECTIVE ECTS	57	24%	

**DEPARTMENT OF COMPUTER ENGINEERING
UNDERGRADUATE CURRICULUM (ELECTIVES)**

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Fall Semesters					
Code	Course Title	T	P	ECTS	Status
COMP 3201	Mobile Programming	3	0	5	Elective
COMP 3215	Human Computer Interaction	3	0	5	Elective
COMP 3222	Image Processing	3	0	5	Elective
COMP 4207	Introduction to Machine Learning	3	0	5	Elective
COMP 4208	Computer Systems Security	3	0	5	Elective
COMP 4221	Special Topics in Computer Engineering I	3	0	5	Elective
COMP 4235	End to End Product Development in Contemporary Environment	3	0	5	Elective

Spring Semesters					
Code	Course Title	T	P	ECTS	Status
COMP 3204	Artificial Intelligence	3	0	5	Elective
COMP 3226	XR Technologies : Metaverse, AR and VR	3	0	5	Elective
COMP 4235	End to End Product Development in Contemporary Environment	3	0	5	Elective
COMP 4202	Practical Data Science	3	0	5	Elective
COMP 4204	Wireless Networks	3	0	5	Elective
COMP 4205	Modelling and Simulation	3	0	5	Elective
COMP 4206	Cloud Computing	3	0	5	Elective
COMP 4210	Intorduction to Cryptology	3	0	5	Elective
COMP 4211	Blockchain Technologies and Applications	3	0	5	Elective
COMP 4216	Biosensor Applications	3	0	5	Elective
COMP 4218	Parallel Computing	3	0	5	Elective
COMP 4220	Introduction to Optimization	3	0	5	Elective
COMP 4224	Computer Architecture	3	0	5	Elective
COMP 4226	Special Topics in Computer Engineering II	3	0	5	Elective
COMP 4228	Embedded Systems	3	0	5	Elective
COMP 4230	Advanced Algorithm Design	3	0	5	Elective
COMP 4232	Multimedia	3	0	5	Elective
COMP 4234	Project Management II	3	0	5	Elective
COMP 4236	Fundamentals of IOT	3	0	5	Elective
COMP 4238	Virtual Reality and Applications	3	0	5	Elective
COMP 4240	Ethical Hacking and Countermeasures	3	0	5	Elective
COMP 4242	Advance Safe Software Development	3	0	5	Elective
COMP 4244	Micro-Services Based Software Design and Development	3	0	5	Elective

TOTAL CREDIT 35

TOTAL CREDIT 115