

FACULTY OF ENGINEERING, ARCHITECTURE AND DESIGN															
COMPUTER ENGINEERING															
CURRICULUM															
1st SEMESTER								2nd SEMESTER							
C.Code	Course Name	Type	T	A	L	C	ECTS	C.Code	Course Name	Type	T	A	L	C	ECTS
CAP 101	Career Planning	C	2	0	0	2	0	CENG 108	Data Structures	C	2	0	2	3	7
CENG 107	Introduction to Computer Systems and Algorithms	C	3	0	2	4	7	ENG 112	English for Academic Purposes II	C	2	0	0	2	2
CHEM 101	General Chemistry	C	3	0	1	3	5	HIST 102	Ataturk's Principles and History of Revolution II	C	2	0	0	2	2
ENG 111	English for Academic Purposes I	C	2	0	0	2	2	MATH 122	Calculus II	C	4	0	0	4	6
HIST 101	Ataturk's Principles and History of Revolution I	C	2	0	0	2	2	MATH 124	Linear Algebra	C	3	0	0	3	5
MATH 121	Calculus I	C	4	0	0	4	6	PHYS 122	Physics II	C	3	0	2	4	6
PHYS 121	Physics I	C	3	0	2	4	6	TUR 102	Turkish Language II	C	2	0	0	2	2
TUR 101	Turkish Language I	C	2	0	0	2	2								
TOTAL						23	30	TOTAL						20	30
3rd SEMESTER								4th SEMESTER							
C.Code	Course Name	Type	T	A	L	C	ECTS	C.Code	Course Name	Type	T	A	L	C	ECTS
CENG 209	Object Oriented Programming	C	2	0	2	3	4	CENG 202	Operating Systems	C	3	0	0	3	5
CENG 211	Web Programming I	C	2	0	2	3	4	CENG 210	Programming Languages	C	2	0	2	3	4
CENG 213	Discrete Mathematics	C	3	0	0	3	4	CENG 212	Machine Learning	C	2	0	2	3	5
MATH 221	Differential Equations	C	4	0	0	4	6	CENG 290	Practicum I	C	0	0	0	0	4
MATH 225	Probability and Statistics	C	3	0	0	3	5	EEE 208	Digital Electronics	C	3	0	2	4	5
	Departmental Elective	E				3	5	MATH 222	Numerical Analysis	C	3	0	0	3	5
	University Elective	E	2	0	0	2	3	OHS 204	Occupational Health and Safety I	C	2	0	0	2	2
TOTAL						21	30	TOTAL						18	30
5th SEMESTER								6th SEMESTER							
C.Code	Course Name	Type	T	A	L	C	ECTS	C.Code	Course Name	Type	T	A	L	C	ECTS
CENG 303	Computer Architecture	C	3	0	0	3	6	CENG 306	Software Engineering	C	3	0	0	3	5
CENG 309	Database Management	C	2	0	2	3	6	CENG 308	System Analysis and Design	C	2	0	2	3	4
CENG 311	Computer Networks	C	3	0	0	3	5	CENG 390	Practicum II	C	0	0	0	0	4
	Departmental Elective	E				3	5	OHS 304	Occupational Health and Safety II	C	2	0	0	2	2
	Departmental/Non-departmental Elective	E				3	5		Departmental Elective	E				3	5
	University Elective	E	2	0	0	2	3		Departmental Elective	E				3	5
									Departmental/Non-departmental Elective	E				3	5
TOTAL						17	30	TOTAL						17	30
7th SEMESTER								8th SEMESTER							
C.Code	Course Name	Type	T	A	L	C	ECTS	C.Code	Course Name	Type	T	A	L	C	ECTS
CENG 403	Graduation Project	C	2	4	0	4	5	CENG 400	MUDU COOP	C	0	40	0	20	30
	Departmental Elective	E				3	5								
	Departmental Elective	E				3	5								
	Departmental Elective	E				3	5								
	Departmental/Non-departmental Elective	E				3	5								
	Departmental/Non-departmental Elective	E				3	5								
TOTAL						19	30	TOTAL						20	30

TOTAL ECTS	240
TOTAL COURSE CREDITS	155
ELECTIVE COURSES TOTAL ECTS	61
ELECTIVE COURSE RATIO (%)	25.42

DEPARTMENTAL ELECTIVE COURSES															
C.Code	Course Name	Type	T	A	L	C	ECTS	C.Code	Course Name	Type	T	A	L	C	ECTS
CENG 273	Data Science	E	2	0	2	3	5	CENG 459	Special Topics in Information Technologies	E	3	0	0	3	5
CENG 354	Quality and Process in Information Technology	E	3	0	0	3	5	CENG 462	Advanced Programming	E	3	0	0	3	5
CENG 356	Generative Artificial Intelligence	E	3	0	0	3	5	CENG 465	Cryptography	E	3	0	0	3	5
CENG 359	Computer Graphics	E	2	0	2	3	5	CENG 466	Quantum Computers	E	3	0	0	3	5
CENG 360	Java Programming	E	2	0	2	3	5	CENG 467	Quantum Programming	E	3	0	0	3	5
CENG 361	Web Programming II	E	2	0	2	3	5	CENG 469	Network Security	E	3	0	0	3	5
CENG 362	Internet of Things	E	2	0	2	3	5	CENG 472	Project Management	E	3	0	0	3	5
CENG 363	Microprocessors	E	3	0	0	3	5	CENG 474	Declarative Programming	E	3	0	0	3	5
CENG 370	Mobile Application Development	E	2	0	2	3	5	CENG 475	Data Organization and Management	E	3	0	0	3	5
CENG 371	Image Processing	E	3	0	0	3	5	CENG 476	Formal Languages and Abstract Machines	E	3	0	0	3	5
CENG 372	Game Programming	E	2	0	2	3	5	CENG 479	Parallel and Distributed Systems	E	3	0	0	3	5
CENG 373	Artificial Intelligence Agents	E	2	0	2	3	5	CENG 481	Robotics Programming	E	3	0	0	3	5
CENG 375	Deep Learning	E	2	0	2	3	5	CENG 482	Script Programming	E	3	0	0	3	5
CENG 439	Responsible Artificial Intelligence and Legal Regulations	E	3	0	0	3	5	CENG 483	Cyber Security	E	3	0	0	3	5
CENG 440	Energy-Efficient Algorithms and Sustainable Computing	E	3	0	0	3	5	CENG 484	System Programming	E	3	0	0	3	5
CENG 441	Sustainable Cyber-Physical Systems	E	3	0	0	3	5	CENG 485	Data Mining	E	3	0	0	3	5
CENG 442	Data Analytics for Renewable Energy Systems	E	3	0	0	3	5	CENG 486	Database Management Systems	E	3	0	2	3	5
CENG 443	Innovation	E	2	0	2	3	5	CENG 488	Artificial Intelligence	E	3	0	0	3	5
CENG 445	Human-Computer Interaction	E	3	0	0	3	5	CENG 489	Assistive Technologies	E	3	0	0	3	5
CENG 446	Embedded System Design	E	2	0	2	3	5	CENG 490	Software Quality Assurance	E	3	0	0	3	5
CENG 447	Artificial Intelligence Engineering	E	3	0	0	3	5	CENG 493	Green Information Technologies	E	3	0	0	3	5
CENG 448	Low-Code Programming	E	2	0	2	3	5	CENG 494	Graphics Processing Unit Programming	E	3	0	0	3	5
CENG 449	Natural Language Processing	E	2	0	2	3	5	CENG 495	Bioinformatics	E	3	0	0	3	5
CENG 451	Information Technology and Environment	E	3	0	0	3	5	CENG 496	Sustainable Artificial Intelligence and Data Centers	E	3	0	0	3	5
CENG 452	Information Technology Governance	E	3	0	0	3	5	CENG 497	Energy Efficiency in Embedded Systems	E	3	0	0	3	5
CENG 453	Information Systems and Applications	E	3	0	0	3	5	CENG 498	Industry-Supported Applied IT Competencies	E	3	0	0	3	5
CENG 454	Fuzzy Logic	E	3	0	0	3	5	CENG 499	Sustainable Computing and Green Software	E	3	0	0	3	5
CENG 455	Cloud Computing	E	3	0	0	3	5								