



OKAN UNIVERSITY
İSTANBUL

FACULTY OF ENGINEERING AND NATURAL SCIENCES
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
ELECTRICAL AND ELECTRONICS ENGINEERING PROGRAMME (IN ENGLISH)

2024-2025 SEMESTER UNDERGRADUATE CURRICULUM

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Semester 1

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
MATH113	Mathematics I	3	2	4	6	Compulsory	
PHYS113	Physics-I	2	2	3	5	Compulsory	
EEE103	Introduction to EE Engineering	2	0	2	7	Compulsory	
CHM103	Chemistry	2	2	3	5	Compulsory	
BBA222	Entrepreneurship Applications	2	0	2	3	Compulsory	
	Foreign Language Elective	2	2	3	4	Elective	
Total Credit		17			30		

Semester 3

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
MATH215	Mathematics III	2	2	3	6	Compulsory	MATH113
EEE207	Circuit Analysis	3	0	3	5	Compulsory	
CMPE152	Computer Programming	2	2	3	5	Compulsory	
ME201	Computer Aided Technical Drawing	2	2	3	5	Compulsory	
MATH265	Probability & Statistics	3	0	3	5	Compulsory	MATH113
MATH220	Numerical Methods	2	2	3	4	Compulsory	MATH113
Total Credit		18			30		

Semester 5

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
EEE301	Electromechanical Energy Conversion	3	2	4	7	Compulsory	
EEE303	Control Systems	3	0	3	7	Compulsory	
EEE305	Electronic Circuits II	3	2	4	6	Compulsory	
EEE307	Analog Communication	3	0	3	5	Compulsory	
EEE311	Digital Signal Processing	2	2	3	5	Compulsory	
Total Credit		17			30		

Semester 7

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
EEE497	Electrical-Electronics Engineering Design	0	2	1	4	Compulsory	
	Departmental Elective / Faculty Elective	3	0	3	5	Elective	
	Departmental Elective / Faculty Elective	3	0	3	5	Elective	
EEE409	Science, Technology and Ethics	2	0	2	8	Compulsory	
ATA111	Atatürk Principles and The History of Turkish Revolution I (*)	2	0	2	2	Compulsory	
TRD111	Turkish-I (*)	2	0	2	2	Compulsory	
INT001	Internship 1	0	0	0	4	Compulsory	
Total Credit		13			30		

TOTAL CREDIT 130
TOTAL ECTS 240

Semester 2

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
MATH114	Mathematics II	3	2	4	6	Compulsory	MATH113
PHYS114	Physics-II	2	2	3	5	Compulsory	PHYS113
EEE104	Logic Circuit Design	2	2	3	8	Compulsory	
CLP001	Career and Life Planning	0	2	1	3	Compulsory	
	University Elective	3	0	3	4	Elective	
	Foreign Language Elective	2	2	3	4	Elective	
Total Credit		17			30		

Semester 4

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
MATH216	Mathematics IV	2	2	3	6	Compulsory	MATH114
EEE212	Electronic Circuits I	3	2	4	5	Compulsory	
EEE214	Signals and Systems	3	0	3	7	Compulsory	MATH113
EEE220	Electromagnetic Theory	2	2	3	6	Compulsory	MATH113
EEE210	Circuits and Systems	2	2	3	6	Compulsory	
Total Credit		16			30		

Semester 6

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
EEE314	Power Electronics & Motion Control Systems	3	2	4	8	Compulsory	
EEE304	Digital Design	2	2	3	5	Compulsory	
EEE306	Digital Communication	3	2	4	6	Compulsory	EEE104
EEE308	Fundamentals of Power Systems	3	0	3	6	Compulsory	
EEE310	Microcontrollers	2	2	3	5	Compulsory	CMPE152
Total Credit		17			30		

Semester 8

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
EEE498	Electrical-Electronics Engineering Graduation Project	0	4	2	4	Compulsory	
	Departmental Elective / Faculty Elective	3	0	3	5	Elective	
	Departmental Elective / Faculty Elective	3	0	3	5	Elective	
IE367	Occupational Health and Safety	3	0	3	5	Compulsory	
ATA112	Atatürk Principles and The History of Turkish Revolution II (*)	2	0	2	2	Compulsory	
TRD112	Turkish-II (*)	2	0	2	2	Compulsory	
INT002	Internship 2	0	0	0	4	Compulsory	
EEE494	Seminar	0	0	0	3	Compulsory	
Total Credit		15			30		

Abbreviations: T=Weekly hours: theoretical; A=Weekly hours: application; C=Credits in Turkish System; ECTS= European Credit Transfer System

ELECTIVE COURSES

Semester 1

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 3

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 5

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 7

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
EEE480	Electrical-Electronics Engineering OCOOP 1	3	0	3	5	Elective	
EEE482	Electrical-Electronics Engineering OCOOP 2	3	0	3	5	Elective	
EEE484	Electrical-Electronics Engineering OCOOP 3	3	0	3	5	Elective	
EEE486	Electrical-Electronics Engineering OCOOP 4	3	0	3	5	Elective	
EEE462	Analog-to-Digital and Digital-to-Analog Converters	3	0	3	5	Elective	
EEE458	Electrical Distribution Systems	3	0	3	5	Elective	
EEE471	Illumination and Indoor Wiring	3	0	3	5	Elective	
EEE454	High Voltage Techniques	3	0	3	5	Elective	
EEE459	Very Large Scale Integrated Circuits	2	2	3	5	Elective	
EEE461	Analog Integrated Circuits	3	0	3	5	Elective	
EEE466	Introduction to EMC Engineering	3	0	3	5	Elective	
EEE465	Antenna & Propagation	3	0	3	5	Elective	
EEE464	RF Electronic Circuits	3	0	3	5	Elective	
EEE479	Fundamentals of Microwave Engineering	3	0	3	5	Elective	
FACULTY ELECTIVE							
ENG368	Wireless Networks	3	0	3	5	Elective	
ENG302	Fuzzy Logic and Its Applications	3	0	3	5	Elective	
ENG304	Technology Management	3	0	3	5	Elective	
ENG308	Energy Policy	3	0	3	5	Elective	
ENG306	Introduction to Web Programming	3	0	3	5	Elective	
ENG310	Sustainable Energy & Environment	3	0	3	5	Elective	
ENG370	Principles of Machine Learning	3	0	3	5	Elective	
ENG301	Management for Engineers	3	0	3	5	Elective	
ENG303	Project Management	3	0	3	5	Elective	
ENG353	Electric Drives	3	0	3	5	Elective	
ENG305	Introduction to Information Security	3	0	3	5	Elective	
ENG351	Digital Filters and Systems	3	0	3	5	Elective	
ENG355	Image Processing	3	0	3	5	Elective	
ENG367	Energy Laws and Regulations	3	0	3	5	Elective	
UNIVERSITY ELECTIVE							

Semester 2

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 4

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 6

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 8

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
EEE480	Electrical-Electronics Engineering OCOOP 1	3	0	3	5	Elective	
EEE482	Electrical-Electronics Engineering OCOOP 2	3	0	3	5	Elective	
EEE484	Electrical-Electronics Engineering OCOOP 3	3	0	3	5	Elective	
EEE486	Electrical-Electronics Engineering OCOOP 4	3	0	3	5	Elective	
EEE462	Analog-to-Digital and Digital-to-Analog Converters	3	0	3	5	Elective	
EEE458	Electrical Distribution Systems	3	0	3	5	Elective	
EEE464	RF Electronic Circuits	3	0	3	5	Elective	
EEE454	High Voltage Techniques	3	0	3	5	Elective	
EEE466	Introduction to EMC Engineering	3	0	3	5	Elective	
EEE461	Analog Integrated Circuits	3	0	3	5	Elective	
EEE471	Illumination and Indoor Wiring	3	0	3	5	Elective	
EEE459	Very Large Scale Integrated Circuits	2	2	3	5	Elective	
EEE465	Antenna & Propagation	3	0	3	5	Elective	
EEE479	Fundamentals of Microwave Engineering	3	0	3	5	Elective	
FACULTY ELECTIVE							
ENG368	Wireless Networks	3	0	3	5	Elective	
ENG302	Fuzzy Logic and Its Applications	3	0	3	5	Elective	
ENG304	Technology Management	3	0	3	5	Elective	
ENG308	Energy Policy	3	0	3	5	Elective	
ENG306	Introduction to Web Programming	3	0	3	5	Elective	
ENG310	Sustainable Energy & Environment	3	0	3	5	Elective	
ENG370	Principles of Machine Learning	3	0	3	5	Elective	
ENG301	Management for Engineers	3	0	3	5	Elective	
ENG303	Project Management	3	0	3	5	Elective	
ENG353	Electric Drives	3	0	3	5	Elective	
ENG305	Introduction to Information Security	3	0	3	5	Elective	
ENG351	Digital Filters and Systems	3	0	3	5	Elective	
ENG355	Image Processing	3	0	3	5	Elective	
ENG367	Energy Laws and Regulations	3	0	3	5	Elective	
UNIVERSITY ELECTIVE							