

 <b>OKAN UNIVERSITY</b> <small>İSTANBUL</small>	<b>FACULTY OF ENGINEERING AND NATURAL SCIENCES</b> <b>DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING</b> <b>ELECTRICAL AND ELECTRONICS ENGINEERING PROGRAMME (IN ENGLISH)</b>  <b>UNDERGRADUATE CURRICULUM</b>				Document Code: FR.OGR.200
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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
CHIM103	Chemistry	2	2	3	5	Compulsory
BBA222	Entrepreneurship Applications	2	0	2	3	Compulsory
	Foreign Language Elective	2	2	3	4	Elective
		<b>Total Credit</b>		<b>17</b>	<b>30</b>	

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
		<b>Total Credit</b>		<b>18</b>	<b>30</b>	

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
		<b>Total Credit</b>		<b>17</b>	<b>30</b>	

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
		<b>Total Credit</b>		<b>13</b>	<b>30</b>	

<b>TOTAL CREDIT</b>	<b>130</b>
<b>TOTAL ECTS</b>	<b>240</b>

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
		<b>Total Credit</b>		<b>17</b>	<b>30</b>	

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
		<b>Total Credit</b>		<b>16</b>	<b>30</b>	

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 EEE104
EEE306	Digital Communication	3	2	4	6	Compulsory
EEE308	Fundamentals of Power Systems	3	0	3	6	Compulsory
EEE310	Microcontrollers	2	2	3	5	Compulsory CMPE152
		<b>Total Credit</b>		<b>17</b>	<b>30</b>	

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
		<b>Total Credit</b>		<b>15</b>	<b>30</b>	

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	
CENG482	Embedded Systems	3	0	3	5	Elective	
CENG218	Programming Languages and Applications	3	0	3	5	Elective	
MCHT460	Industrial Robotics and Automation	3	0	3	5	Elective	
CENG489	Pattern Recognition	3	0	3	5	Elective	
MCHT462	Autonomous Mobile Robots	3	0	3	5	Elective	
MCHT477	Introduction to Robotics	3	0	3	5	Elective	
MCHT464	Computer Vision	3	0	3	5	Elective	
MCHT465	Introduction to Deep Learning	3	0	3	5	Elective	
MCHT479	Introduction to AI Systems	3	0	3	5	Elective	
EEE477	Clean Energy Technology and Energy Storage Systems	3	0	3	5	Elective	
EEE463	Electromagnetic Waves And Microwave Techniques	3	0	3	5	Elective	
MCHT478	Phyton for Engineers	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	
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	
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	
ENG476	Applied Mathematics	3	0	3	5	Elective	
ENG477	Materials Science for Engineers	3	0	3	5	Elective	
UNIVERSITY ELECTIVE							
ENG380	Introduction to Sustainability	3	0	3	5	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	
CENG482	Embedded Systems	3	0	3	5	Elective	
CENG218	Programming Languages and Applications	3	0	3	5	Elective	
MCHT460	Industrial Robotics and Automation	3	0	3	5	Elective	
CENG489	Pattern Recognition	3	0	3	5	Elective	
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MCHT465	Introduction to Deep Learning	3	0	3	5	Elective	
MCHT479	Introduction to AI Systems	3	0	3	5	Elective	
EEE477	Clean Energy Technology and Energy Storage Systems	3	0	3	5	Elective	
EEE463	Electromagnetic Waves And Microwave Techniques	3	0	3	5	Elective	
MCHT478	Phyton for Engineers	3	0	3	5	Elective	
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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	
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	
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	
ENG476	Applied Mathematics	3	0	3	5	Elective	
ENG477	Materials Science for Engineers	3	0	3	5	Elective	
UNIVERSITY ELECTIVE							
ENG380	Introduction to Sustainability	3	0	3	5	Elective	