

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

## 2024-2025 SEMESTER UNDERGRADUATE CURRICULUM

Document Code: FR.OGR.200 Revision Number: 02 Publish Date: 25.06.1999 Revision Date: 25.07.2023 Page Number: 1

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Course Title	T	A	C	ECTS	Status	Prerequisite
Mathematics I	3	2	4	6	Compulsory	
Physics-I	2	2	3	5	Compulsory	
Introduction to EE Engineering	2	0	2	7	Compulsory	
Chemistry	2	2	3	5	Compulsory	
Entrepreneurship Aplications	2	0	2	. 3	Compulsory	
Foreign Language Elective	2	2	3	4	Elective	
	Total Cred	dit	17	30		
	Mathematics I Physics-I Introduction to EE Engineering Chemistry Entrepreneurship Aplications	Mathematics I         3           Physics-I         2           Introduction to EE Engineering         2           Chemistry         2           Entrepreneurship Aplications         2           Foreign Language Elective         2	Mathematics   3 2 2	Mathematics I         3 2 4           Physics-1         2 2 3           Introduction to EE Engineering         2 10 2           Chemistry         2 2 3           Entrepreneurship Aplications         2 0 2           Foreign Language Elective         2 2 2	Mathematics   3   2   4   6	Mathematics   3 2 4 6 Compulsory

Semester 3	o mu	l m	٠.	-	-		
Code	Course Title	1	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 Cre	dit	18	30		

Course Title	T A		C	ECTS	Status	Prerequisite
Electromechanical Energy Conversion	3 2	2	4	7	Compulsory	
Control Systems	3 (	0	3	7	Compulsory	
Electronic Circuits II	3 2	2	4	6	Compulsory	
Analog Communication	3 (	0	3	5	Compulsory	
Digital Signal Processing	2 2	2	3	5	Compulsory	
	Total Credi	t	17	30		
	Electromechanical Energy Conversion Control Systems Electronic Circuits II Analog Communication	Electromechanical Energy Conversion   3   Control Systems   3   Electronic Circuits II   3   Analog Communication   3   Digital Signal Processing   2	Electromechanical Energy Conversion   3   2   Control Systems   3   0   0   Electronic Circuits   3   2   2   2   2   2   2   2   2   2	Electromechanical Energy Conversion   3   2   4	Electromechanical Energy Conversion   3 2 4 7 7   Control Systems   3 0 3 7   Electronic Circuits   3 2 4 6 6   Electronic Circuits   3 2 4 6 6   Electronic Circuits   3 2 4 6 6   Electronic Circuits   3 3 0 3 5   Electronic Circuits   4 6 6 6   Electronic Circuits   4 6 6   Electronic Circuits   4 6 6 6   Electronic Circuits   4 6 6   Electronic Cir	Electromechanical Energy Conversion

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	
	Tota	l Cre	dit	13	30		

	3	U	3	3 Elective			Departmental Elective / Faculty Elective		3	U	3	3	Elective	
	2	0	2	8 Compulsory	•	IE367	Occupational Health and Safety		3	0	3	5	Compulsory	
volution I (*)	2	0	2	2 Compulsory	•	ATA112	Atatürk Principles and The History of Turkish Revolution II (*)		2	0	2	2	Compulsory	
	2	0	2	2 Compulsory	•	TRD112	Turkish-II (*)		2	0	2	2	Compulsory	
	0	0	0	4 Compulsory	•	INT002	Internship 2		0	0	0	4	Compulsory	
						EEE494	Seminar		0	0	0	3	Compulsory	
Total C	red	it	13	30				Total C	red	it :	15	30		
TOTAL CREDIT TOTAL ECTS		130 240		·										

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	Cre	dit	17	30		

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 Cree	dit	16	30		

Code	Course Title	T	A	C		ECTS	Status	Prerequisite
EEE314	Power Electronics & Motion Control Systems	3	1	2	4	8	Compulsory	1
EEE304	Digital Design	2	2	2	3	5	Compulsory	EEE104
EEE306	Digital Communication	3	1	2	4	6	Compulsory	
EEE308	Fundamentals of Power Systems	3	(	)	3	6	Compulsory	
EEE310	Microcontrollers	2	2	2	3	5	Compulsory	CMPE152
	Tot	al Cr	edi	t 1	17	30		
Semester :	-	lar.		10		ECTC	S4-4	D
Code	Course Title		A	C		ECTS		Prerequisit
	Course Title Electrical-Electronics Engineering Graduation Project	T	-	C	2	4	Compulsory	Prerequisit
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Code	Course Title Electrical-Electronics Engineering Graduation Project	(	) 4	C 1	2 3	4 5	Compulsory	Prerequisit
Code	Course Title  Electrical-Electronics Engineering Graduation Project  Departmental Elective / Faculty Elective	3	3 (	)	2 3 3	4 5 5	Compulsory Elective	Prerequisit
Code EEE498	Course Title Electrical-Electronics Engineering Graduation Project Departmental Elective / Faculty Elective Departmental Elective / Faculty Elective	3	) 4 3 ( 3 (	)	2 3 3 2	4 5 5 5	Compulsory Elective Elective	Prerequisit
Code EEE498 IE367	Course Title Electrical-Electronics Engineering Graduation Project Departmental Elective / Faculty Elective Departmental Elective / Faculty Elective Occupational Health and Safety  Cocupational Health and Safety	3 3	) 4 3 ( 3 ( 2 (	)	2 3 3	5 5 5 2	Compulsory Elective Elective Compulsory	Prerequisit
Code EEE498 IE367 ATA112	Course Title Electrical-Electronics Engineering Graduation Project Departmental Elective / Faculty Elective Departmental Elective / Faculty Elective Occupational Health and Safety Attatüt Principles and The History of Turkish Revolution II (*)	3 3 3 2	3 (	)	2 3 3 2	4 5 5 5 2 2	Compulsory Elective Elective Compulsory Compulsory	Prerequisit
Code EEE498 IE367 ATA112 TRD112	Course Title Electrical-Electronics Engineering Graduation Project Departmental Elective / Faculty Elective Departmental Elective / Faculty Elective Occupational Health and Safety Atatürk Principles and The History of Turkish Revolution II (*) Turkish-II (*)	3 3 3 2 2	3 (3 (3 (3 (3 (3 (3 (3 (3 (3 (3 (3 (3 (3	0	2 3 3 2	4 5 5 5 2 2 4	Compulsory Elective Elective Compulsory Compulsory Compulsory	Prerequisit

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



## ELECTIVE COURSES

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	·	SECOND FOREIGN LANGUAGE	:	•	•			
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	•	DEPARTMENTAL ELECTIVE	•	•		•		
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	•	FACULTY ELECTIVE					•	
	·	UNIVERSITY ELECTIVE	•	•	•		•	
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	DEPARTMENTAL ELEC	TIVE	-	-	-		-!
EEE480	Electrical-Electronics Engineering O'COOP 1	3	0	3	5	Elective	
EEE482	Electrical-Electronics Engineering O'COOP 2	3				Elective	
EEE484	Electrical-Electronics Engineering O'COOP 3	3	0	3	5	Elective	
EEE486	Electrical-Electronics Engineering O'COOP 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		3		Elective	
EEE454	High Voltage Techniques	3		3		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	Æ.	_				*
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	
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Course Title	T	A	C	ECTS	Status	Prerequisite
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	SECOND FOREIGN LAN	GUAGE				•	
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	DEPARTMENTAL ELE	CTIVE					
EEE480	Electrical-Electronics Engineering O'COOP 1	3	0	3	5	Elective	
EEE482	Electrical-Electronics Engineering O'COOP 2	3	0	3	5	Elective	
EEE484	Electrical-Electronics Engineering O'COOP 3	3	0	3	5	Elective	
EEE486	Electrical-Electronics Engineering O'COOP 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		Elective	
EEE464	RF Electronic Circuits	3	0	3		Elective	
EEE454	High Voltage Techniques	3	0	3		Elective	
EEE466	Introduction to EMC Engineering	3	0	3		Elective	
EEE461	Analog Integrated Circuits	3	0	3		Elective	
EEE471	Illumination and Indoor Wiring	3	0	3		Elective	
EEE459	Very Large Scale Integrated Circuits	2	2	3		Elective	
EEE465	Antenna & Propagation	3	0	3		Elective	
EEE479	Fundamentals of Microwave Engineering	3	0	3		Elective	
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ENG368	Wireless Networks	3	0	3	- 5	Elective	
ENG302	Fuzzy Logic and Its Applications	3	0	3		Elective	
ENG304	Technology Management	3	0	3		Elective	
ENG304 ENG308	Energy Policy	3	0	3		Elective	
ENG306	Introduction to Web Programming	3	0	3		Elective	
ENG300 ENG310	Sustainable Energy & Environment	3	0	3		Elective	
ENG370	Principles of Machine Learning	3	0	3		Elective	
ENG3/0 ENG301	Management for Engineers	3	0	3		Elective	
ENG301 ENG303	Project Management	3	0	3		Elective	
ENG353	Electric Drives	3	0	3		Elective	
ENG305	Introduction to Information Security	3	0	3		Elective	
ENG305 ENG351	Digital Filters and Systems	3	0	3		Elective	_
ENG351 ENG355	Image Processing	3	0	3		Elective	_
ENG355 ENG367		3	0	3		Elective	_
ENU36/	Energy Laws and Regulations	3	U	3	)	Elective	-
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