

**DEPARTMENT OF ELECTRICAL-ELECTRONICS ENGINEERING UNDERGRADUATE COURSE PLAN (100% English)**  
**(It will be implemented starting from the 2023-2024 Academic Year.)**

Fall Term - 1st Semester							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
YDI1001	English - I	3	3,0	3	0	0	
MATH1001	Mathematics - I	5	4,0	4	0	0	
PHYS1001	Physics - I	5	3,5	3	0	1	
CHM1001	Basic Chemistry	5	3,5	3	0	1	
EEE1003	Introduction to Electrical and Electronics Engineering	2	2,0	2	0	0	
EEE1007	Fundamentals of Electrical Engineering	5	4,0	3	0	2	
EEE1009	Introduction to Computers	3	3,0	3	0	0	
EEE1011	Occupational Health and Safety - I	2	2,0	2	0	0	
<b>Total Credit</b>		<b>30</b>	<b>25,0</b>	<b>23</b>	<b>0</b>	<b>4</b>	

Spring Term - 2nd Semester							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
YDI1002	English - II	3	3,0	3	0	0	
MATH1000	Mathematics - II	5	4,0	4	0	0	
PHYS1000	Physics - II	5	3,5	3	0	1	
EEE1000	Computer Programming	4	3,5	3	0	1	
EEE1002	Measurements in Electrical Engineering	4	3,0	2	0	2	EEE1007
EEE1008	Materials in Electrical Engineering	2	2,0	2	0	0	
EEE1006	Digital Design	5	3,5	3	0	1	EEE1009
EEE1010	Occupational Health and Safety - II	2	2,0	2	0	0	
<b>Total Credit</b>		<b>30</b>	<b>24,5</b>	<b>22</b>	<b>0</b>	<b>5</b>	

Fall Term - 3rd Semester							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE2025	English in Engineering	4	3,0	3	0	0	
MATH2001	Differential Equations	5	4,0	4	0	0	
EEE2011	Probability and Random Processes	4	3,0	3	0	0	
EEE2019	Microprocessors	5	3,5	3	0	1	
EEE2027	Electromagnetic Fields	4	3,0	3	0	0	
EEE2029	Circuits - I	4	3,0	3	0	0	EEE1007
TURK2003	Turkish Language - I	2	0,0	2	0	0	
HIST2003	Ataturk's Principles and History of Revolution- I	2	0,0	2	0	0	
<b>Total Credit</b>		<b>30</b>	<b>19,5</b>	<b>23</b>	<b>0</b>	<b>1</b>	

Spring Term - 4th Semester							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE2XXX	Engineering Mathematics	4	4,0	4	0	0	
EEE2008	Electronics - I	5	4,0	3	0	2	EEE1007
EEE2XXZ	Power Systems	4	3,0	3	0	0	
EEE2006	Circuits - II	5	4,0	3	0	2	EEE2029
EEE2XXX	Electromagnetic Waves	4	3,0	3	0	0	
EEE2XXX	Numerical Analysis	4	3,0	3	0	0	
TURK2XXX	Turkish Language - II	2	0,0	2	0	0	
HIST2XXX	Ataturk's Principles and History of Revolution- II	2	0,0	2	0	0	
<b>Total Credit</b>		<b>30</b>	<b>21,0</b>	<b>23</b>	<b>0</b>	<b>4</b>	

Fall Term - 5th Semester							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE3003	System Dynamics and Control	4	3,0	3	0	0	
EEE3013	Signals and Systems	4	3,0	3	0	0	
EEE3009	Electronics - II	5	4,0	3	0	2	EEE2008
EEE3019	Electrical Machines- I	5	4,0	3	0	2	
EEE3021	Power Electronic Circuits	5	4,0	3	0	2	
EEE3029	Entrepreneurship	3	2,0	2	0	0	
	Technical Elective - T51	4	3,0	3	0	0	
<b>Total Credit</b>		<b>30</b>	<b>23,0</b>	<b>20</b>	<b>0</b>	<b>6</b>	

Spring Term - 6th Semester							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE3XXX	Power Distribution Systems	5	4,0	3	0	2	EEE2XXZ
EEE3XXX	High Voltage Techniques	4	3,0	3	0	0	
EEE3XXX	Digital Signal Processing	5	4,0	3	0	2	
EEE3XXX	Communication Techniques	5	4,0	4	0	0	
EEE3034	Project Management	2	2,0	2	0	0	
	Technical Elective - T61	5	4,0	3	0	2	
	Social Elective - S61	4	2,0	2	0	0	
<b>Total Credit</b>		<b>30</b>	<b>23,0</b>	<b>20</b>	<b>0</b>	<b>6</b>	

Fall Term - 7th Semester							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE4017	Professional Training - I	3	0,0	0	2	0	
EEE4xxx	Engineering Design	5	3,0	2	2	0	
ENG4XXX	Multidisciplinary Engineering Applications	2	1,0	0	2	0	
	Technical Elective - T71	6	3,0	2	0	2	
	Technical Elective - T71	6	3,0	2	0	2	
	Technical Elective - T72	4	2,0	2	0	0	
	Technical Elective - T72	4	2,0	2	0	0	
<b>Total Credit</b>		<b>30</b>	<b>14,0</b>	<b>10</b>	<b>4</b>	<b>4</b>	

Spring Term - 8th Semester							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE4010	Professional Training - II	3	0,0	0	2	0	
EEE4012	Graduation Project	8	3,0	2	2	0	EEE4xxx
	Technical Elective - T81	5	2,0	2	0	0	
	Technical Elective - T81	5	2,0	2	0	0	
	Technical Elective - T81	5	2,0	2	0	0	
	Social Elective - S81	4	2,0	2	0	0	
<b>Total Credit</b>		<b>30</b>	<b>11,0</b>	<b>10</b>	<b>2</b>	<b>0</b>	
<b>GRAND TOTAL CREDIT</b>		<b>240</b>	<b>161,0</b>	<b>151,0</b>	<b>6,0</b>	<b>30,0</b>	

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5th Semester - TECHNICAL ELECTIVE GROUP T51							
1 course must be selected from this group.							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE3015	Computer Communication	4	3	3	0	0	
EEE3017	Network Synthesis	4	3	3	0	0	
EEE3027	Embedded Systems	4	3	3	0	0	
EEE3XXX	Python Programming	4	3	3	0	0	

6th Semester - TECHNICAL ELECTIVE GROUP T61							
1 course must be selected from this group.							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE3010	Automatic Control Systems	5	4,0	3	0	2	
EEE3020	Microwave Techniques	5	4,0	3	0	2	

6th Semester - SOCIAL ELECTIVE GROUP S61							
1 course must be selected from this group.							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE3XXX	Technological Developments	4	2	2	0	0	
USEC0003	Professional Ethics	4	2	2	0	0	
USEC0012	Career Planning	4	2	2	0	0	
EEE3XXX	Engineering Economics	4	2	2	0	0	
USEC0007	Protection of Personal data	4	2	2	0	0	

7th Semester - TECHNICAL ELECTIVE GROUP T71							
2 courses must be selected from this group.							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE4XXX	Renewable Energy Systems	6	3	2	0	2	
EEE4XXX	Power System Protection	6	3	2	0	2	
EEE4XXX	Process Control	6	3	2	0	2	
EEE4XXX	Power Electronic Applications	6	3	2	0	2	
EEE4XXX	Antennas and Propagation	6	3	2	0	2	
EEE4XXX	Medical Electronics	6	3	2	0	2	
EEE4XXX	Digital Communication	6	3	2	0	2	
EEE4XXX	Industrial Electronics	6	3	2	0	2	

8th Semester – TECHNICAL ELECTIVE GROUP T81							
3 courses must be selected from this group.							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE4xxx	Power System Analysis	5	2	2	0	0	
EEE4xxx	Drive Systems	5	2	2	0	0	
EEE4xxx	Electrical machines - II	5	2	2	0	0	
EEE4xxx	Power System Design	5	2	2	0	0	
EEE4xxx	Electrical Vehicles	5	2	2	0	0	
EEE4xxx	Electromagnetic Compatibility	5	2	2	0	0	
EEE4xxx	Fiberoptic Communication	5	2	2	0	0	
EEE4xxx	Communication Systems	5	2	2	0	0	
EEE4xxx	Digital Control Systems	5	2	2	0	0	
EEE4xxx	Intelligent Control Systems	5	2	2	0	0	
EEE4xxx	Mobile Communications	5	2	2	0	0	
EEE4xxx	Medical Imaging Techniques	5	2	2	0	0	
EEE4xxx	Electrochemical Biosensors	5	2	2	0	0	
EEE4xxx	Mechatronics	5	2	2	0	0	

7th Semester - TECHNICAL ELECTIVE GROUP T72							
2 courses must be selected from this group.							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE4025	Lighting Techniques	4	2	2	0	0	
EEE4027	Special Electric Machines	4	2	2	0	0	
EEE4029	Distributed Generation Systems	4	2	2	0	0	
EEE4031	Communication Electronics	4	2	2	0	0	
EEE4033	Image Processing	4	2	2	0	0	
ELK4037	Microwave Systems	4	2	2	0	0	
EEE4039	Electronic Device Techniques	4	2	2	0	0	
EEE4041	Introduction to Biomedical Optics	4	2	2	0	0	

8th Semester - SOCIAL ELECTIVE GROUP S81							
1 course must be selected from this group.							
Code	Course Name	ECTS	C	H	A	L	Prerequisite
EEE4038	Business Law	4	2	2	0	0	
OPE4032	Management and Organization	4	2	2	0	0	
EEE4040	Information Crime Law	4	2	2	0	0	
EEE4042	Expertise Law and its Application	4	2	2	0	0	

**PREREQUISITE COURSES**

<b>Course Name</b>	<b>Prerequisite Course</b>
EEE1006 Digital Design	EEE1009 Introduction to Computers
EEE2029 Circuits - I	EEE1007 Fundamentals of Electrical Engineering
EEE1002 Measurements in Electrical Engineering	EEE1007 Fundamentals of Electrical Engineering
EEE2008 Electronics- I	EEE1007 Fundamentals of Electrical Engineering
EEE2006 Circuits - II	EEE2029 Circuits - I
EEE3009 Electronics- II	EEE2008 Electronics- I
EEE3XXX Power Distribution Systems	EEE2XXZ Power Systems
EEE4012 Graduation Project	EEE4xxx Engineering Design

**ADDITIONAL TERMS:**

- (1). In order to take courses in the 5th semester, the GPA must be at least 1.8 at the end of the 4th semester.**
- (2). There is a 70% attendance requirement for theoretical courses and 80% attendance at laboratories.**

**In order to enroll in a continuation course, it is necessary to get at least a DC grade from the prerequisite course.**

**09/08/2023**