

BALIKESIR UNIVERSITY									
ENGINEERING FACULTY									
DEPARTMENT OF ELECTRICAL ELECTRONICS ENGINEERING									
UNDERGRADUATE ELECTIVE COURSE PLAN FOR 2026-2027									
5th SEMESTER ELECTIVE COURSES									
CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
	ELECTIVE COURSES 1-2								
EEE3139	Control Circuits	E	3	0	0	3	4	%40	
EEE3141	Num. Methods In Electromag. Theory	E	3	0	0	3	4	%40	
EEE3143	Semiconductors and Applications 1	E	3	0	0	3	4	%40	
EEE3145	Computer Networks	E	3	0	0	3	4	%40	
EEE3147	Vocational foreign language 1	E	3	0	0	3	4	%40	
EEE3151	Advanced C Applications	E	3	0	0	3	4	%40	
EEE3153	Numerical Analysis Methods	E	3	0	0	3	4	%40	
EEE3155	Applied Electromagnetic Waves 1	E	3	0	0	3	4	%40	
EEE3157	Biomedical Devices and Measurements	E	3	0	0	3	4	%40	
EEE3159	Optoelectronics 1	E	3	0	0	3	4	%40	
EEE3161	Computer Communications Network	E	3	0	0	3	4	%40	
EEE3163	MATLAB Applications in Engineering	E	3	0	0	3	4	%40	
EEE3165	Artificial Intelligence Fundamentals	S	3	0	0	3	4	%40	
EEE3167	Industrial Real Time Data Acquisition and Control	S	3	0	0	3	4	%40	
EEE3169	Introduction to Robotic Systems	S	3	0	0	3	4	%25	Project: %15
MTH31XX	Sector on Campus	E	3	0	0	3	4	%5	Quiz: %35
MTH31XX	Sector on Campus	E	3	0	0	3	4	%5	Quiz: %35

6th SEMESTER ELECTIVE COURSES									
CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
	ELECTIVE COURSES 3-4								
EEE3240	Applied Electromagnetic Waves 2	E	3	0	0	3	4	%40	
EEE3242	Applied Mathematics	E	3	0	0	3	4	%40	
EEE3244	Special Electric Machinery	E	3	0	0	3	4	%40	
EEE3246	Web Programming	E	3	0	0	3	4	%40	
EEE3248	Semiconductors and Applications 2	E	3	0	0	3	4	%40	
EEE3250	Vocational foreign language 2	E	3	0	0	3	4	%40	
EEE3254	Introduction to Finite Element Method	E	3	0	0	3	4	%40	
EEE3256	Instrumentation in Electrical Power Syste	E	3	0	0	3	4	%40	
EEE3258	Digital Control	E	3	0	0	3	4	%20	Project: %20
EEE3260	Optoelectronics 2	E	3	0	0	3	4	%40	
EEE3262	Python Applications in Engineering	E	3	0	0	3	4	%40	
EEE3264	Modeling Applications with MATLAB and Simulink in Engineering	S	3	0	0	3	4	%25	Project: %15
EEE3266	Artificial Intelligence Methods and Applications	S	3	0	0	3	4	%25	Project: %15
EEE3268	Modeling and Control of Mechatronic Syst	S	3	0	0	3	4	%25	Project: %15
EEE3270	Computer-Aided Electronic Design	S	3	0	0	3	4	%40	
MTH32XX	Sector on Campus	E	3	0	0	3	4	%5	Quiz: %35
MTH32XX	Sector on Campus	E	3	0	0	3	4	%5	Quiz: %35

7th SEMESTER ELECTIVE COURSES									
CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
	ELECTIVE COURSES 5-6								
EEE4127	Experimental Design	E	3	0	0	3	4	%40	
EEE4139	Programmable Logic Devices	E	3	0	0	3	4	%40	
EEE4141	Antennas	E	3	0	0	3	4	%40	
EEE4143	Energy Efficiency and Power Quality	E	3	0	0	3	4	%40	
EEE4145	Digital Communication	E	3	0	0	3	4	%40	
EEE4197	Circuit Design	E	2	0	0	2	5	40%	
EEE4147	Distribution Systems	E	3	0	0	3	4	%40	
EEE4149	Switch Mode Power Supplies	E	3	0	0	3	4	%40	
EEE4161	Reactive Power Compansation	E	3	0	0	3	4	%40	
EEE4163	Energy Generation and Transmission	E	3	0	0	3	4	%40	
EEE4165	Robotics	E	3	0	0	3	4	%20	Project: %20
EEE4167	Industrial Electronics	E	3	0	0	3	4	%40	
EEE4169	Medical Electronics	E	3	0	0	3	4	%40	
EEE4171	Microwave Circuit Techniques 1	E	3	0	0	3	4	%40	
EEE4173	Digital Image Processing	E	3	0	0	3	4	%40	
EEE4175	Industrial Electrical-Electronics and Control Systems Project Design	S	3	0	0	3	4	%40	
MTH41XX	Sector on Campus	E	3	0	0	3	4	%5	Quiz: %35
MTH41XX	Sector on Campus	E	3	0	0	3	4	%5	Quiz: %35
	ELECTIVE LABORATORY								
EEE4181	Control Laboratory	E	0	0	2	1	2	%40	
EEE4183	Communication Laboratory	E	0	0	2	1	2	%40	
EEE4185	Antennas Laboratory	E	0	0	2	1	2	%40	
EEE4187	Power Electronics Laboratory	E	0	0	2	1	2	%40	
EEE4189	Special Electrical Machinery Laboratory	E	0	0	2	1	2	%40	
EEE4191	Digital Signal Processing Laboratory	E	0	0	2	1	2	%40	
EEE4193	Electrical Machines Laboratory	E	0	0	2	1	2	%40	

8th SEMESTER ELECTIVE COURSES									
CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
	ELECTIVE COURSES 7-8								
EEE4240	Audio and Image Processing	E	3	0	0	3	4	%40	
EEE4242	Comp. Aided Analy. of Power Sys.	E	3	0	0	3	4	%40	
EEE4244	Radar Systems	E	3	0	0	3	4	%40	
EEE4246	SCADA App. in Electrical Installations	E	3	0	0	3	4	%40	
EEE4248	Communication Electronics	E	3	0	0	3	4	%40	
EEE4280	Undergraduate Project	E	0	2	0	1	5	40%	
EEE4260	Process Control	E	3	0	0	3	4	%40	
EEE4262	Power Flow Analysis and Stability	E	3	0	0	3	4	%40	
EEE4264	Sensors	E	3	0	0	3	4	%40	
EEE4266	Microwave Circuit Techniques 2	E	3	0	0	3	4	%40	
EEE4268	Technologic Systems	E	3	0	0	3	4	%40	
EEE4270	Wireless System Applications	E	3	0	0	3	4	%40	
EEE4272	Artificial Neural Networks	E	3	0	0	3	4	%40	
MTH42XX	Sector on Campus	E	3	0	0	3	4	%5	Quiz: %35
MTH42XX	Sector on Campus	E	3	0	0	3	4	%5	Quiz: %35

ELECTRICAL ELECTRONICS ENGINEERING FACULTY SOCIAL ELECTIVE COURSES

7th SEMESTER SOCIAL ELECTIVE COURSES									
CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
EES4101	Strategy Gaming 1	SE	2	0	0	2	3	%40	
EES4105	History of Science	SE	2	0	0	2	3	%40	
EES4107	Scientific Research Methods	SE	2	0	0	2	3	%40	
EES4109	Entrepreneurship 1	SE	2	0	0	2	3	%40	
EES4110	Regulations in Electrical Engineering	SE	2	0	0	2	3	%40	

8th SEMESTER SOCIAL ELECTIVE COURSES									
CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
EES4202	Strategy Gaming 2	SE	2	0	0	2	3	%40	
EES4204	Plant Organiztaion	SE	2	0	0	2	3	%40	
EES4206	Business Law	SE	2	0	0	2	3	%40	
EES4208	Economy of Electric Energy	SE	2	0	0	2	3	%40	
EEE4210	Entrepreneurship 2	SE	2	0	0	2	3	%40	

ELECTRICAL ELECTRONICS ENGINEERING FACULTY TECHNICAL ELECTIVE COURSES

3rd SEMESTER TECHNICAL ELECTIVE COURSES									
CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
EET2101	Robotics Applications 1	E	2	0	0	2	2	%20	Project: %20
EET2103	3ds Max Design 1	E	2	0	0	2	2	%20	Project: %20
EET2105	Computer Aided Circuit Design 1	E	2	0	0	2	2	%40	
EET2107	Industrial Applications of Electricity	E	2	0	0	2	2	%40	
EET2109	Nanotech. and Microfabrication 1	E	2	0	0	2	2	%40	
EET2111	Introdcution to Analog Circuits 1	E	2	0	0	2	2	%40	
EET2113	Introduction to Renewable and Sustainable Energy Systems	E	2	0	0	2	2	%40	

4th SEMESTER TECHNICAL ELECTIVE COURSES

CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
EET2202	Robotics Applications 2	E	2	0	0	2	2	%20	Project: %20
EET2204	3ds Max Design 2	E	2	0	0	2	2	%20	Project: %20
EET2206	Computer Aided Circuit Design 2	E	2	0	0	2	2	%40	
EET2208	Fundamentals of Electrical Machinery	E	2	0	0	2	2	%40	
EET2210	Nanotech. and Microfabrication 2	E	2	0	0	2	2	%40	
EET2212	Introduction to Analog Circuits 2	E	2	0	0	2	2	%40	
EET2214	Pneumatic and Electro-Pneumatic Systems	E	2	0	0	2	2	%30	Project: %10

5th SEMESTER UNIVERSITY ELECTIVE COURSES									
CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
USD0037	Writing and Speaking Abilities	USD	2	0	0	2	3	%40	
USD0136	Industry 4.0 and Digital Transformation	USD	2	0	0	2	3	%40	

6th SEMESTER UNIVERSITY ELECTIVE COURSES									
CODE	COURSE NAME	Cate.	T	A	L	Cr	ECTS	Semester Assessment Activities (%40)	
								Midterm Exam	Other Assessment Activities
								*The percentage of assessment activities will be indicated below.	
USD0038	Logic Games	USD	2	0	0	2	3	%40	
USD0039	Web Design	USD	2	0	0	2	3	%40	

C:Compulsory

E:Elective

SE:Social Elective

USD: University Elective