

THE 2025-2026 CURRICULUM OF THE DEPARTMENT OF MECHATRONICS ENGINEERING, THE FACULTY OF ENGINEERING.

YEAR 1

FIRST SEMESTER

Course Code	Course Name	C/E	T	P	L	C	ECTS	Course Prerequisite	Course Code	Course Name	C/E	T	P	L	C	ECTS	Course Prerequisite
FİZ1105	Physics Laboratory I	C	0	0	2	1	2		MAT1146	Linear Algebra	C	2	0	0	2	4	
FİZ1111	Physics I	C	4	0	0	4	6		FİZ1106	Physics Laboratory II	C	0	0	2	1	2	
KİM1105	Chemistry	C	4	0	0	4	6		FİZ1112	Physics II	C	3	0	0	3	6	
KİM1109	Chemistry Laboratory I	C	0	0	2	1	2		MAT1162	Mathematics II	C	4	0	0	4	6	
MAT1161	Mathematics I	C	4	0	0	4	6		MKM1122	Electrical Circuits	C	3	0	2	4	6	
MKM1105	Introduction to Mechatronics								YDİ108	English II	C	2	0	0	2	2	
	Engineering, Orientation and Ethics	C	1	0	0	1	2										
YDİ107	English I	C	2	0	0	2	2		AİT102	Principles of Atatürk and History of Turkish Reforms II	C	2	0	0	2	2	
AİT101	Principles of Atatürk and History of Turkish Reforms I	C	2	0	0	2	2		TRD110	Turkish Language II	C	2	0	0	2	2	
TRD109	Turkish Language I	C	2	0	0	2	2										
	Semester Total		19	0	4	21	30			Semester Total		18	0	4	20	30	

YEAR 2

THIRD SEMESTER

Course Code	Course Name	C/E	T	P	L	C	ECTS	Course Prerequisite	Course Code	Course Name	C/E	T	P	L	C	ECTS	Course Prerequisite
MAT2171	Differential Equations	C	4	0	0	4	6		MKM2124	Electronic Circuits Laboratory	C	0	0	2	1	2	MKM2123
MKM2123	Electronic Circuits	C	3	0	0	3	5		MKM2104	Algorithms and Programming	C	2	0	2	3	3	
MKM2125	Technical English and Presentation Skills	C	2	0	0	2	4	YDİ107	IST2134	Probability and Statistics	C	3	0	0	3	4	
MKM2111	Engineering Mechanics	C	3	0	0	3	3		MKM2114	Numerical Analysis	C	3	0	0	3	4	
MKM2131	Engineering Mathematics	C	3	0	0	3	6	MAT1161	MKM2120	Computer-Aided Technical Drawing	C	1	0	2	2	3	
MKM2115	Entrepreneurship, Innovation and Project Management	C	1	0	0	1	2		MKM2126	Dynamics	C	3	0	0	3	3	
	Technical Elective Course-1	E	2	0	0	2	4		MKM2150	Academic English and Writing Rules	C	2	0	0	2	4	

	Technical Elective Course-1								SSD2122	Social Elective Course-1	E	2	0	0	2	3	
MKM2113	Material Science	E	2	0	0	2	4			Technical Elective Course-2	E	2	0	0	2	4	
MKM2119	Manufacturing Processes	E	2	0	0	2	4			Technical Elective Course-2							
MKM2121	Thermodynamics	E	2	0	0	2	4		MKM2110	Fluid Mechanics	E	2	0	0	2	4	
									MKM2112	Artificial Intelligence and Applications	E	2	0	0	2	4	
									MKM2116	Heat Transfer	E	2	0	0	2	4	
	Semester Total		18	0	0	18	30			Semester Total		18	0	6	21	30	
YEAR 3																	
FIFTH SEMESTER																	
Course Code	Course Name	C/E	T	P	L	C	ECTS	Course Prerequisite	Course Code	Course Name	C/E	T	P	L	C	ECTS	Course Prerequisite
MKM3143	System Dynamics and Modeling	C	2	0	0	2	3		MKM3120	Sensors and Measurement Techniques	C	1	1	0	1	3	
MKM3121	Strength of Materials	C	3	0	0	3	3		MF3110	Interdisciplinary Project	C	0	0	0	0	0	
MKM3129	Digital Electronics	C	1	0	1	1	3		MKM3138	Otomatic Control	C	3	0	0	3	5	
MKM3131	Professional Practice I	C	0	2	0	1	1		MKM3122	Microprocessors	C	2	0	1	2	3	
MKM3113	Occupational Health and Safety	C	1	0	0	1	1		MKM3140	Electrical Machines Laboratory	C	0	0	2	1	3	MKM3145
MKM3145	Electromechanical Systems	C	4	0	0	4	4			Technical Elective Course-6	E	2	0	0	2	4	
SSD3101	Social Elective Course-2	E	2	0	0	2	3			Technical Elective Course-7	E	2	0	0	2	4	
	Technical Elective Course-3	E	2	0	0	2	4			Technical Elective Course-8	E	2	0	0	2	4	
	Technical Elective Course-4	E	2	0	0	2	4			Technical Elective Course-9	E	2	1	0	2	4	
	Technical Elective Course-5	E	4	0	0	4	4			Technical Elective Course-6							
	Technical Elective Course-3								MKM3118	Machine Elements	E	2	0	0	2	4	
MKM3141	Electronic Communication	E	2	0	0	2	4		MKM3132	Finite Element Analysis	E	2	0	0	2	4	
MKM3119	Biomedical Measurement	E	2	0	0	2	4			Technical Elective Course-7							
	Technical Elective Course-4								MKM3124	Digital Signal Processing	E	2	0	0	2	4	

MKM3103	Machine Theory	E	2	0	0	2	4		MKM3142	Smart Materials	E	2	0	0	2	4	
MKM3133	Air Conditioning Systems	E	2	0	0	2	4		MKM3110	Mechanical Vibrations	E	2	0	0	2	4	
	Technical Elective Course-5									Technical Elective Course-8							
MKM3115	Control Circuits	E	4	0	0	4	4		MKM3136	CAD/CAM	E	2	0	0	2	4	
MKM3135	Optimization Techniques	E	4	0	0	4	4		MKM3112	Factory Organization	E	2	0	0	2	4	
										Technical Elective Course-9							
									MKM3126	Industrial Programming	E	2	0	0	2	4	
									MKM3116	Industrial Design	E	2	0	0	2	4	
	Semester Total		21	2	1	22	30			Semester Total		14	2	3	15	30	
YEAR 4																	
SEVENTH SEMESTER																	
Course Code	Course Name	C/E	T	P	L	C	ECTS	Course Prerequisite	Course Code	Course Name	C/E	T	P	L	C	ECTS	Course Prerequisite
MKM4139	Power Electronics and Drives	C	3	0	2	4	5		OPTION-1								
MKM4127	Elective Graduation Design Project	C	0	2	0	1	5		MKM4102	Graduation Project	C	0	2	0	1	5	MF3110
MKM4137	Digital Control	C	2	0	0	2	4		MKM4126	Robotic Systems	C	3	0	0	3	4	
MKM4129	Robot Vision	C	2	0	0	2	4		MKM4110	Mobile Robot Design	C	2	0	0	2	2	
MKM4133	Professional Practice II	C	0	2	0	1	1		SSD4202	Social Elective Course-4	E	2	0	0	2	3	
SSD4101	Social Elective Course-3	E	2	0	0	2	3			Technical Elective Course-12	E	2	0	0	2	4	
	Technical Elective Course-10	E	2	0	0	2	4			Technical Elective Course-13	E	2	0	0	2	4	
	Technical Elective Course-11	E	2	0	0	2	4			Technical Elective Course-14	E	2	0	0	2	4	
	Technical Elective Course-10									Technical Elective Course-15	E	2	0	0	2	4	
MKM4105	Autonomous Systems	E	2	0	0	2	4			Technical Elective Course-12							
MKM4135	Mechatronics in Automotive Engineering	E	2	0	0	2	4		MKM4130	Data Mining and Mechatronic System Applications	E	2	0	0	2	4	

	Technical Elective Course-11								MKM4140	Industrial Measurement Systems	E	2	0	0	2	4	
MKM4103	Computerized Control	E	2	0	0	2	4		MKM4128	Optical Systems	E	2	0	0	2	4	
MKM4107	Process Control	E	2	0	0	2	4			Technical Elective Course-13							
									MKM4180	Electrical Vehicles	E	2	0	0	2	4	
									MKM4132	Flexible Manufacturing Systems	E	2	0	0	2	4	
										Technical Elective Course-14							
									MKM4118	Vehicle Dynamics	E	2	0	0	2	4	
									MKM4136	Renewable Energy Systems	E	2	0	0	2	4	
									MKM4190	Medical Mechatronics	E	2	0	0	2	4	
										Technical Elective Course-15							
									MKM4138	Hydraulic and Pneumatic Systems	E	2	0	0	2	4	
									MKM4142	Biomechatronic Systems	E	2	0	0	2	4	
									MKM4100	Avionic Systems	E	2	0	0	2	4	
										Semester Total		15	2	0	16	30	
	Semester Total		13	4	2	16	30		OPTION-2								
									MKM4146	Applied Engineering Education	C	5	14	0	12	30	

Social Elective Course List	
SOS2510	Industrial Sociology
SYE2270	First aid
EGT2710	Development and Learning
MKM2170	Total Quality Management
RTV2230	Oral Expression
RTV2030	Political Science
SOS2490	Moral Philosophy and
SOS2550	Sociology of Management
MKM4310	Labor Law
MKM4410	Engineering Economics