

MECHATRONICS ENGINEERING DEPARTMENT BACHELOR'S SCIENCE CURRICULUM (2024/2025)

FRESHMAN YEAR

1. Semester

Course Code	Course Title	T	R	C	ECTS
ENG 121	Academic English I	3	0	3	4
MATH 157	Calculus for Engineering I	4	0	4	5
PHYS 131	Physics I	3	2	4	6
TURK 101	Turkish I	2	0	2	3
MECE 101	Computational Tools for Mechatronics Engineering	2	0	2	2
MECE 113	Computer Aided Engineering Drawing I	2	2	3	5
CHEM 103	Chemistry	3	2	4	5
Total 7 courses		19	6	22	30

2. Semester

Course Code	Course Title	T	R	C	ECTS
MECE 114	Computer Aided Engineering Drawing II	3	0	3	4
ENG 122	Academic English II	3	0	3	4
MATH 158	Calculus for Engineering II	4	0	4	5
PHYS 132	Physics II	3	2	4	6
TURK 102	Turkish II	2	0	2	3
MECE 104	Fundamentals of Mechatronics Engineering	2	0	2	3
CENG 161	Introduction to Computer Science + Lab.	3	2	4	5
Total 7 courses		20	4	22	30

SOPHOMORE YEAR

1. Semester

Course Code	Course Title	T	R	C	ECTS
MECE 203	Statics	3	0	3	5
MECE 210	Manufacturing Processes	3	2	4	5
MECE 235	Circuit Theory I	2	2	3	5
MECE 223	Digital Design	3	2	4	6
MATH 254	Introduction to Differential Equations	4	0	4	4
CENG 162	Computer Programming I + Lab.	3	2	4	5
Total 6 courses		18	8	22	30

2. Semester

Course Code	Course Title	T	R	C	ECTS
MECE 206	Dynamics	3	0	3	4
MECE 202	Strength of Materials	3	0	3	5
MECE 234	Circuit Theory II	2	2	3	5
MATH 253	Vector Calculus and Linear Algebra	4	0	4	4
MECE 218	Principles of Signals and Systems	3	2	4	5
MECE 212	Probability and Random Processes	3	0	3	4
Elective	Social Science Elective I	3	0	3	3
Total 7 courses		21	4	23	30

JUNIOR YEAR

1. Semester

Course Code	Course Title	T	R	C	ECTS
MECE 307	Machine Elements I	3	0	3	5
MECE 349	Analog Electronics	3	2	4	5
MECE 301	Theory of Machines I	3	0	3	4
MECE 200	Summer Training I	0	0	0	5
MECE 386	Control Theory	3	2	4	5
Elective	Technical Elective I*	3	0	3	5
ESR 103	Ethical Principals and Social Responsibility	1	0	1	1
Total 7 courses		16	4	18	30

2. Semester

Course Code	Course Title	T	R	C	ECTS
MECE 308	Mechatronics System Design I	3	0	3	5
MECE 302	Sensors and Measurement	3	2	4	5
MECE 336	Microprocessors I	3	2	4	5
MECE 340	Electromechanical Energy Conversion	3	0	3	3
MECE 304	Artificial Intelligence for Mechatronics Engineering	3	0	3	4
Elective	Social Science Elective II	3	0	3	3
MECE 306	Computer Programming for Mechatronics Engineering	2	2	3	5
Total 7 courses		20	6	23	30

SENIOR YEAR

1. Semester

Course Code	Course Title	T	R	C	ECTS
IE 345	Engineering Economy	3	0	3	4
MECE 309	Mechatronics System Design II	3	0	3	5
MECE 401	Introduction to Robotics	3	2	4	5
MECE 407	Innovative Engineering Analysis and Design	1	2	2	3
HIST 201	Principles of Kemal Atatürk	2	0	2	3
MECE 300	Summer Training II	0	0	0	5
Elective	Technical Elective II*	3	0	3	5
Total 7 courses		15	4	17	30

2. Semester

Course Code	Course Title	T	R	C	ECTS
HIST 202	Principles of Kemal Atatürk II	2	0	2	3
MECE 403	Autonomous Systems Design	2	2	3	4
Elective	Technical Elective III*	3	0	3	5
Elective	Technical Elective IV*	3	0	3	5
Elective	Technical Elective V*	3	0	3	5
IE 446	Project Engineering Management	3	0	3	5
MECE 408	Innovative Engineering Design and Implementation	1	2	2	3
Total 7 courses		17	4	19	30

TOTAL CREDIT		146	40	166	240
---------------------	--	------------	-----------	------------	------------

* Teknik Seçmeli derslerde Mekatronik Mühendisliği (MECE) derslerinin yanı sıra Makine Mühendisliği (ME), Bilgisayar Mühendisliği (CENG), Elektrik ve Elektronik Mühendisliği (EE), Yazılım Mühendisliği (SENG), Malzeme Bilimi ve Mühendisliği (MSE) ve Endüstri Mühendisliği (IE) bölümlerinin zorunlu ve seçmeli dersleri de bulunmaktadır. Ancak 5 Teknik Seçmeli dersten en az 3'ü Mekatronik Mühendisliği (MECE), Makine Mühendisliği (ME), Elektrik ve Elektronik Mühendisliği (EE), Bilgisayar Mühendisliği (CENG) veya Yazılım Mühendisliği (SENG) Bölümlerinden alınmalıdır ve bölüm onayına tabidir.