



FACULTY OF ENGINEERING AND NATURAL SCIENCES
DEPARTMENT OF MECHANICAL ENGINEERING
MECHANICAL ENGINEERING PROGRAMME (IN ENGLISH)
UNDERGRADUATE CURRICULUM

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Semester 1

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
MATH113	Mathematics I	3	2	4	6	Compulsory	
ATA111	Atatürk Principles and The History of Turkish Revolution I	2	0	2	2	Compulsory	
PHYS113	Physics-I	2	2	3	5	Compulsory	
TRD111	Turkish-I	2	0	2	2	Compulsory	
ME101	Introduction to Mechanical /Automotive Engineering	3	0	3	6	Compulsory	
CHM103	Chemistry	2	2	3	5	Compulsory	
	Foreign Language Elective	2	2	3	4	Elective	
Total Credit		20			30		

Semester 3

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
MATH215	Mathematics III	2	2	3	6	Compulsory	MATH113
ME201	Computer Aided Technical Drawing	2	2	3	5	Compulsory	
ME213	Engineering Materials	2	2	3	7	Compulsory	
ME209	Thermodynamics I	3	0	3	7	Compulsory	
IE367	Occupational Health and Safety	3	0	3	5	Compulsory	
Total Credit		15			30		

Semester 5

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
ME315	Mechanical Experimental Lab I	2	2	3	5	Compulsory	
ME305	Machine Design I	3	0	3	5	Compulsory	
ME307	Fluid Mechanics I	3	0	3	5	Compulsory	
ME309	Dynamics	3	0	3	5	Compulsory	
ME313	Systems and Control	3	0	3	5	Compulsory	
EEE207	Circuit Analysis	3	0	3	5	Compulsory	
Total Credit		18			30		

Semester 7

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
ME407	Mechanical Experimental Lab II	2	2	3	8	Compulsory	
ME497	Mechanical Engineering Design	0	2	1	4	Compulsory	
BBA222	Entrepreneurship Applications	2	0	2	3	Compulsory	
ME409	Heat Transfer II	3	0	3	7	Compulsory	
	Departmental Elective	3	0	3	5	Elective	
	Departmental Elective	3	0	3	5	Elective	
Total Credit		15			32		

TOTAL CREDIT	133
TOTAL ECTS	240

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

Semester 2

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
MATH114	Mathematics II	3	2	4	6	Compulsory	MATH113
ATA112	Atatürk Principles and The History of Turkish Revolution II	2	0	2	2	Compulsory	
PHYS114	Physics-II	2	2	3	5	Compulsory	PHYS113
TRD112	Turkish-II	2	0	2	2	Compulsory	
ME102	Statics for Mechanical Engineers	3	0	3	8	Compulsory	
CLP001	Career and Life Planning	0	2	1	3	Compulsory	
	Foreign Language Elective	2	2	3	4	Elective	
Total Credit		18			30		

Semester 4

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
MATH216	Mathematics IV	2	2	3	6	Compulsory	MATH114
ME210	Mechanics of Materials I	3	0	3	5	Compulsory	
ME212	Computer Aided Mechanical Design	2	2	3	6	Compulsory	
CMPE152	Computer Programming	2	2	3	5	Compulsory	
	University Elective	3	0	3	4	Elective	
INT001	Internship I	0	0	0	4	Compulsory	
Total Credit		15			30		

Semester 6

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
ME302	Heat Transfer I	3	0	3	4	Compulsory	
ME306	Machine Design II	3	0	3	4	Compulsory	
ME310	Theory of Machines	3	0	3	6	Compulsory	
ME318	Manufacturing Techniques	3	0	3	7	Compulsory	
ME320	Principles of Mechatronics	2	2	3	5	Compulsory	
MATH220	Numerical Methods	2	2	3	4	Compulsory	MATH113
Total Credit		18			30		

Semester 8

Code	Course Title	T	A	C	ECTS	Status	Prerequisite
ME498	Mechanical Engineering Graduation Project	0	4	2	4	Compulsory	
	Departmental Elective	3	0	3	5	Compulsory	
	Departmental Elective	3	0	3	5	Elective	
	Faculty Elective	3	0	3	5	Elective	
	Faculty Elective	3	0	3	5	Elective	
INT002	Internship II	0	0	0	4	Compulsory	
Total Credit		14			28		



ELECTIVE COURSES

Semester 1							
Code	Course Title	T	A	C	ECTS	Status	Prerequisite
FOREIGN LANGUAGE ELECTIVE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 2							
Code	Course Title	T	A	C	ECTS	Status	Prerequisite
FOREIGN LANGUAGE ELECTIVE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 3							
Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 4							
Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 5							
Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 6							
Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 7							
Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
ME451	Engineering Applications of Dynamics	3	0	3	5	Elective	
ME453	Thermodynamics II	3	0	3	5	Elective	
ME455	Fluid Mechanics II	3	0	3	5	Elective	
ME457	Mechanics of Materials II	3	0	3	5	Elective	
ME461	Systems and Control II	3	0	3	5	Elective	
ME491	Special Topics in Mechanical Engineering	3	0	3	5	Elective	
ME458	Introduction to Finite Element Analysis	3	0	3	5	Elective	
AUTO407	Vehicle Dynamics	3	0	3	5	Elective	
AUTO471	Automotive Body and Interior Design	3	0	3	5	Elective	
AUTO473	Automotive Aerodynamics and Thermal Systems	3	0	3	5	Elective	
AUTO303	Vehicle Development Fundamentals	3	0	3	5	Elective	
AUTO411	Internal Combustion Engines	3	0	3	5	Elective	
ME460	HVAC	3	0	3	5	Elective	
FACULTY ELECTIVE							
UNIVERSITY ELECTIVE							

Semester 8							
Code	Course Title	T	A	C	ECTS	Status	Prerequisite
SECOND FOREIGN LANGUAGE							
DEPARTMENTAL ELECTIVE							
ME452	Vibration	3	0	3	5	Elective	
ME454	Mechanical Behavior of Materials	3	0	3	5	Elective	
ME458	Introduction to Finite Element Analysis	3	0	3	5	Elective	
ME460	HVAC	3	0	3	5	Elective	
ME461	Systems and Control II	3	0	3	5	Elective	
ME453	Thermodynamics II	3	0	3	5	Elective	
ME491	Special Topics in Mechanical Engineering	3	0	3	5	Elective	
AUTO 474	Fundamentals of Electric Vehicles	3	0	3	5	Elective	
AUTO 476	Vehicle Controls and Autonomous Vehicles	3	0	3	5	Elective	
AUTO 308	Automotive Electronics and Mechatronics	3	0	3	5	Elective	
AUTO473	Automotive Aerodynamics and Thermal Systems	3	0	3	5	Elective	
ENG308	Energy Policy	3	0	3	5	Elective	
ME490	Mechanical Engineering OCOOP 1	3	0	3	5	Elective	
ME492	Mechanical Engineering OCOOP 2	3	0	3	5	Elective	
ME494	Mechanical Engineering OCOOP 3	3	0	3	5	Elective	
ME496	Mechanical Engineering OCOOP 4	3	0	3	5	Elective	
FACULTY ELECTIVE							
ME452	Vibration	3	0	3	5	Elective	
ME454	Mechanical Behavior of Materials	3	0	3	5	Elective	
ME458	Introduction to Finite Element Analysis	3	0	3	5	Elective	
ME460	HVAC	3	0	3	5	Elective	
ME461	Systems and Control II	3	0	3	5	Elective	
ME453	Thermodynamics II	3	0	3	5	Elective	
ME491	Special Topics in Mechanical Engineering	3	0	3	5	Elective	
AUTO 474	Fundamentals of Electric Vehicles	3	0	3	5	Elective	
AUTO 476	Vehicle Controls and Autonomous Vehicles	3	0	3	5	Elective	
AUTO 308	Automotive Electronics and Mechatronics	3	0	3	5	Elective	
AUTO473	Automotive Aerodynamics and Thermal Systems	3	0	3	5	Elective	
ME490	Mechanical Engineering OCOOP 1	3	0	3	5	Elective	
ME492	Mechanical Engineering OCOOP 2	3	0	3	5	Elective	
ME494	Mechanical Engineering OCOOP 3	3	0	3	5	Elective	
ME496	Mechanical Engineering OCOOP 4	3	0	3	5	Elective	
ENG302	Fuzzy Logic and Its Applications	3	0	3	5	Elective	
ENG304	Technology Management	3	0	3	5	Elective	
ENG306	Introduction to Web Programming	3	0	3	5	Elective	
ENG308	Energy Policy	3	0	3	5	Elective	
ENG316	Introduction to Traffic Engineering	3	0	3	5	Elective	
ENG318	Introduction to Environmental Engineering	3	0	3	5	Elective	
ENG370	Principles of Machine Learning	3	0	3	5	Elective	