NEW CURRICULUM (*) BY 2016–2017 FALL SEMESTER

FIRST YEAR

SEMESTER #1

Code	***Course Name***	***T***	***A***	***C***	***ECTS***
MATH157	Extended Calculus I	4	2	**5**	**7.5**
PHYS101	General Physics I	3	2	**4**	**6.0**
ENG101	English Communication Skills I	4	0	**4**	**3.5**
MFGE108	Computer Aided Solid Modelling	1	3	**2**	**4.0**
HIST221	History of Civilization	3	0	**3**	**3.0**
HIST111	Principles of Atatürk and History of Turkish Revolution I	2	0	**2**	**2.0**
CMPE102	Computer Programming	2	2	**3**	**4.0**
				TOTAL ECTS	**30**

SEMESTER #2

Code	***Course Name***	***T***	***A***	***C***	***ECTS***
MATH158	Extended Calculus II	4	2	**5**	**7.5**
PHYS102	General Physics II	3	2	**4**	**6.0**
MATE207	Introduction to Materials Engineering	3	0	**3**	**5.0**
ENG102	English Communication Skills II	4	0	**4**	**3.5**
CEAC105	General Chemistry	3	2	**4**	**5.0**
HIST112	Principles of Atatürk and History of Turkish Revolution II	2	0	**2**	**2.0**
ME101	Introduction to Mechanical Engineering	1	0	**1**	**1.0**
				TOTAL ECTS	**30**

(*) Valid for students who enroll to the Mechanical Engineering Department in 2016-2017 Fall Semester

SECOND YEAR

SEMESTER #3

Code	***Course Name***	***T***	***A***	***C***	***ECTS***
ME201	Statics	3	0	**3**	**6.0**
ENE203	Thermodynamics	3	0	**3**	**6.0**
MFGE205	Manufacturing Processes	2	2	**3**	**5.0**
MATH275	Linear Algebra	4	0	**4**	**6.0**
ENG201	Advanced Communication Skills	3	0	**3**	**3.0**
GE1	*General Elective*	3	0	**3**	**4.0**
				TOTAL ECTS	**30**

SEMESTER #4

Code	***Course Name***	***T***	***A***	***C***	***ECTS***
MECE204	Dynamics	3	1	**3**	**6.0**
ME210	Strength of Materials	3	1	**3**	**6.0**
EE234	Introduction of Electrical Engineering	3	1	**3**	**5.0**
MATH276	Differential Equations	4	0	**4**	**6.0**
ENG202	Presentation Skills	3	0	**3**	**3.0**
GE2	*General Elective*	3	0	**3**	**4.0**
				TOTAL ECTS	**30**

THIRD YEAR

SEMESTER #5

Code	***Course Name***	***T***	***A***	***C***	***ECTS***
AE307	Fluid Mechanics	3	1	**3**	**6.0**
MECE303	Theory of Machines	3	1	**3**	**6.0**
ENG301	English for Career Development I	3	0	**3**	**3.0**
ENE301	Heat Transfer	3	1	**3**	**6.0**
IE220	Probability and Statistics	3	0	**3**	**5.0**
GE3	*General Elective*	3	0	**3**	**4.0**
ME399	Summer Practice I			**NC**	**6.0**
				TOTAL ECTS	**30**

SEMESTER #6

Code	***Course Name***	***T***	***A***	***C***	***ECTS***
ME316	Machine Elements	3	1	**3**	**7.0**
MECE306	Control Systems	3	0	**3**	**6.0**
MATH380	Numerical Methods for Engineers	3	1	**3**	**5.0**
IE305	Engineering Economic Analysis	2	0	**2**	**5.0**
ENG302	English for Career Development II	3	0	**3**	**3.0**
ME390	Mechanical Engineering Systems Lab.	1	3	**2**	**4.0**
				TOTAL ECTS	**30**

FOURTH YEAR

SEMESTER #7

Code	***Course Name***	***T***	***A***	***C***	***ECTS***
ME403	Design of Mechanical Systems	3	1	**3**	**8.0**
TURK401	Turkish Language I	2	0	**2**	**2.0**
AE1	*Area Elective (A)*	3	0	**3**	**5.0**
AE2	*Area Elective (A)*	3	0	**3**	**5.0**
AE3	*Area Elective (A)*	3	0	**3**	**5.0**
AE4	*Area Elective (A)*	3	0	**3**	**5.0**
ME499	Summer Practice II			**NC**	**6.0**
				TOTAL ECTS	**30**

SEMESTER #8

Code	***Course Name***	***T***	***A***	***C***	***ECTS***
ME404	Design Project	1	4	**3**	**8.0**
TURK402	Turkish Language II	2	0	**2**	**2.0**
AE5	*Area Elective (A)*	3	0	**3**	**5.0**
AE6	*Area Elective (A)*	3	0	**3**	**5.0**
AE7	*Area Elective (A)*	3	0	**3**	**5.0**
AE8	*Area Elective (A)*	3	0	**3**	**5.0**
				TOTAL ECTS	**30**

AREA ELECTIVES

Code	***Course Name***	***T***	***A***	***C***	***ECTS***
ME302	Fluid Mechanics II	3	0	3	5
ME408	Thermal Systems Design	3	0	3	6
ME424	Nuclear Energy	3	0	3	5
ME425	Mechanical Vibrations	3	0	3	5
ME431	Failure Analysis	3	0	3	5
ME435	Fracture Mechanics	3	0	3	5
ME437	Computational Fluid Dynamics	2	2	0	5
ME438	Pipeline Fundamentals and Design	3	0	3	5
ME441	Gas Dynamics	3	0	3	5
ME452	Introduction to Fluid Power Control	3	0	3	5
ME472	Energy Engineering	3	0	3	5
ENE305	Combustion	3	0	3	5
ENE308	Solar Energy Technology	3	1	3	5
ENE310	Hydropower	3	0	3	5
ENE312	Wind Energy Technology	3	1	3	5
ENE314	Geothermal Energy Technology	3	0	3	5
ENE316	Reactor Design	3	0	3	5
ENE403	Power Transmission and Distribution	3	0	3	5
ENE404	Energy and Environment	3	0	3	5
ENE409	Fossil Energy Resources (Oil, Gas and Coal) I	3	0	3	5
ENE410	Fossil Energy Resources (Oil, Gas and Coal) II	3	0	3	5
ENE411	Electrochemistry	3	0	3	5
ENE412	Fuel Cells Technologies	3	0	3	5
ENE413	Global Finance	3	0	3	5
ENE414	Global Energy	3	0	3	5
ENE415	Energy Storage Technology	3	0	3	5
ENE416	Gas Hydrates	3	0	3	5
ENE418	Energy Laws and Regulations	3	0	3	5
ENE420	Bio Energy Technologies	3	0	3	5

ENE421	Hydrogen Technology	3	0	3	5
ENE422	Optimization in Energy Systems	3	0	3	5
ENE424	Energy and Environment Economics	3	0	3	5
ENE426	Nuclear Technology	3	0	3	5
ENE428	Power Plant Engineering	3	0	3	5
ENE430	Energy Systems in Buildings	3	0	3	5
EE451	Power System Analysis	3	0	3	5
EE452	High Voltage Techniques	3	0	3	5
MECE422	Multi- Disciplinary Design	2	2	3	6
E400	Undergraduate Research Project	3	0	3	5
MFGE310	Finite Element Analysis for Manufacturing (Practical Aspects)	2	2	3	5
MFGE404	Computer Integrated Manufacturing	3	1	3	5
MFGE405	Rapid Prototyping	2	2	3	5
MFGE406	Joining Technologies	3	0	3	5
MFGE412	Introduction to Optimization	3	0	3	5
MFGE418	Advanced Strength of Materials	3	0	3	5
MFGE420	Project Management in Manufacturing	3	0	3	5
MFGE426	Manufacturing of Automobiles	3	0	3	5
MFGE432	Polymer Processing	3	0	3	5
MFGE433	Residual Stresses	3	1	3	5
MFGE434	Introduction to Distortion Engineering	3	1	3	5
MFGE478	Production Plant Design	3	0	3	5
MFGE481	Nanofabrication	3	0	3	5
MFGE577	Quality Control and Metrology	2	2	3	7,5
MATE440	Corrosion and Oxidation of Metals	3	0	3	5
MATE442	Welding Metallurgy and Technology	5	0	3	5
MATE446	Composite Materials	3	0	3	5
MATE450	Nondestructive Evaluation of Materials	3	0	3	5
MATE452	Fracture of Engineering Materials and Failure Analysis	3	0	3	5