

FACULTY OF ENGINEERING, DEPARTMENT OF MECHANICAL ENGINEERING

2011-2012 ACADEMIC CURRICULUM, CODE OF PROGRAMME: 0212, (100% English), (I. EDUCATION), (Hzr. SINIF-2012)

PREPARATION CLASS											
Prep Class 1st. Semester					Prep Class 2nd. Semester						
Code	Course Name	LT	LB	CR	ECTS	Code	Course Name	LT	LB	CR	ECTS
MCE000	Prep Class	0	0	0	0	MCE000	Prep Class	0	0	0	0

I. CLASS											
1st. Semester Courses					2nd. Semester Courses						
Code	Course Name	LT	LB	CR	ECTS	Code	Course Name	LT	LB	CR	ECTS
CAL183	Mathematics I	4	0	4	4	CAL186	Mathematics II	4	0	4	4
PHY183	General Physics I	4	0	4	4	PHY186	General Physics II	4	0	4	4
CHE183	General Chemistry	3	0	3	3	CAL192	Linear Algebra	3	0	3	3
CME183	Information Technologies and Applications	2	2	3	4	CME182	Computer Programming	2	2	3	4
MCE101	Introduction to Mechanical Engineering	2	0	2	3	MCE102	Statics	4	0	4	4
MCE105	Computer Aided Technical Drawing I	2	2	3	6	MCE110	Computer Aided Technical Drawing II	2	2	3	3
	<b>Total</b>	<b>17</b>	<b>4</b>	<b>19</b>	<b>30</b>	MCE108	Measurement Techniques	2	0	2	2
						<b>Total</b>		<b>21</b>	<b>4</b>	<b>23</b>	<b>30</b>

HST181	Atatürk's Principles and History of Revolutions I	2	0	2	2	HST182	Atatürk's Principles and History of Revolutions II	2	0	2	2
TRK181	Turkish Language I	2	0	2	2	TRK182	Turkish Language II	2	0	2	2
FOL181	Foreign Language I	2	0	2	2	FOL182	Foreign Language II	2	0	2	2

<sup>1</sup>İntibak Dersleri

<sup>2</sup> MCE106	Computer Aided Technical Drawing II	2	2	3	4
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<sup>1</sup> Bu dersler (intibak dersleri), eski programlarda var olan fakat yeni programda yer almayan yada eşleniği olmayan dersleri içermektedir.

<sup>1</sup> İntibak dersleri, daha önceki müfredata tabi iken bu ders/dersleri hiç almamış, yada aldığı halde F2/F3 notlarıyla başarısız olmuş öğrenciler tarafından alınacaktır.

<sup>2</sup> Bu ders, 2010-2011 Eğitim Öğretim yılı müfredatına tabi öğrenciler tarafından alınacak intibak dersidir.

Aşağıda yeni müfredatta eşleniği verilen eski müfredatlardaki derslerden başarısız olan öğrenciler yeni müfredat eşlenik derslerini alacaktır.

YENİ MÜFREDATTA EŞLENİĞİ VERİLEN ESKİ MÜFREDATTA YER ALAN DERSLER												
Eski Müfredat Yılı	2nd. Semester Courses											
	Değişime Uğrayan Eski Müfredat Dersleri					Yeni Müfredatta Dersin Eşliği						
	Code	Course Name	LT	LB	CR	ECTS	Code	Course Name	LT	LB	CR	ECTS
2010-2011	CME182	Computer Programming	2	2	3	3	CME182	Computer Programming	2	2	3	4
	CAL188	Linear Algebra	3	0	3	3	CAL192	Linear Algebra	3	0	3	3

II. CLASS											
3rd. Semester Courses					4th. Semester Courses						
Code	Course Name	LT	LB	CR	ECTS	Code	Course Name	LT	LB	CR	ECTS
FOL281	Technical Foreign Language I	2	0	2	2	FOL282	Technical Foreign Language II	2	0	2	2
CAL283	Differential Equations	3	0	3	4	INE260	Engineering Statistics	2	0	2	3
MME261	Materials Science	3	0	3	4	MCE212	Mechanisms	3	0	3	4
MCE219	Manufacturing Processes I	3	1	3,5	5	MCE216	Manufacturing Processes II	3	1	3,5	5
MCE221	Thermodynamics I	3	0	3	4	MCE218	Thermodynamics II	3	0	3	4
MCE217	Strength of Materials I	3	0	3	4	MCE220	Strength of Materials II	3	0	3	4
MCE215	Dynamics	3	0	3	4	MME260	Engineering Materials	3	0	3	4
EEE261	Basic Electric and Electronic	2	0	2	3	CAL282	Numerical Analysis	3	0	3	4
	<b>Total</b>	<b>22</b>	<b>1</b>	<b>22,5</b>	<b>30</b>	<b>Total</b>		<b>22</b>	<b>1</b>	<b>22,5</b>	<b>30</b>

III. CLASS											
5th. Semester Courses					6th. Semester Courses						
Code	Course Name	LT	LB	CR	ECTS	Code	Course Name	LT	LB	CR	ECTS
MCE399	Industrial Practice I	0	0	0	4	FOL382	Foreign Language for Business	2	0	2	2
FOL381	Speaking and Reading Tech. at Foreign Language	2	0	2	2	MCE302	Machine Laboratory	2	1	2,5	3
MCE301	Fluid Mechanics I	3	0	3	3	MCE304	Fluid Mechanics II	3	0	3	3
MCE303	Machine Elements I	3	0	3	3	MCE306	Machine Elements II	3	0	3	3
MCE305	Heat Transfer	3	0	3	3	INE360	Engineering Economy	2	0	2	3
MCE307	Dynamics of Machinery	3	0	3	3	MCE310	System Dynamics and Controls	3	0	3	3
MCE309	Hydraulics and Pneumatics	3	0	3	3		<b>Branch Elective Course (A)</b>	3	0	3	6
	<b>Branch Elective Course (A)</b>	3	0	3	4		<b>Branch Elective Course (B)</b>	2	0	2	5

<b>Branch Elective Course (B)</b>	2	0	2	3
<b>Social Elective Course (C)</b>	2	0	2	2
<b>Total</b>	<b>24</b>	<b>0</b>	<b>24</b>	<b>30</b>

<b>Social Elective Course (C)</b>	2	0	2	2
<b>Total</b>	<b>22</b>	<b>1</b>	<b>22,5</b>	<b>30</b>

<b>Branch Elective Course (A) (Energy)</b>					
MCE311	Heating Technology	3	0	3	4

<b>Branch Elective Course (A) (Energy)</b>					
MCE314	Refrigeration Technology	3	0	3	6

<b>Branch Elective Course (A) (Construction)</b>					
MCE313	Machine Tools	3	0	3	4

<b>Branch Elective Course (A) (Construction)</b>					
MCE316	Computer Aided Design I	3	0	3	6

<b>Branch Elective Courses (B) (Energy)</b>					
MCE315	Alternative Energy Sources	2	0	2	3
MCE317	Plumbing Systems and Design	2	0	2	3
MCE319	Modern Engineering Measure Techniques	2	0	2	3

<b>Branch Elective Courses (B) (Energy)</b>					
MCE318	Solar Energy and Applications	2	0	2	5
MCE320	Natural Gas Installation	2	0	2	5
MCE322	Energy Management	2	0	2	5

<b>Branch Elective Courses (B) (Construction)</b>					
MCE319	Modern Engineering Measure Techniques	2	0	2	3
MCE321	Advanced Manufacturing Planning	2	0	2	3
MCE323	Surface Treatment	2	0	2	3

<b>Branch Elective Courses (B) (Construction)</b>					
MCE324	Modern Manufacturing Methods	2	0	2	5
MCE326	Systematic Design	2	0	2	5
MCE328	Quality Management Systems	2	0	2	5

<b>Social Elective Courses (C)</b>					
ESC301	Labour Law	2	0	2	2
ESC303	Patent and Industrial Design	2	0	2	2
ESC305	Entrepreneurship	2	0	2	2
ESC307	Communication Skills	2	0	2	2
ESC309	International Communication	2	0	2	2
ESC311	Critical Analytic Thinking Techniques	2	0	2	2
SOC381	Values Educaion	2	0	2	2

<b>Social Elective Courses (C)</b>					
ESC302	Research and Presentation Skills	2	0	2	2
ESC304	Human Resources Management	2	0	2	2
ESC306	Management Systems	2	0	2	2
ESC308	Occupational Health and Safety	2	0	2	2
ESC310	Corporate Behavior	2	0	2	2
ESC312	Standardization	2	0	2	2

1 compulsory course will be selected in each semester depending on Branch from "A" group courses

1 course will be selected in each semester depending on Branch Elective from "B" group courses

1 course will be selected in each semester from "C" group courses

"Industrial Practice" will be done according to the training regulation.

<b>IV. CLASS</b>											
<b>7th. Semester</b>						<b>8th. Semester</b>					
<b>Code</b>	<b>Course Name</b>	<b>LT</b>	<b>LB</b>	<b>CR</b>	<b>ECTS</b>	<b>Code</b>	<b>Course Name</b>	<b>LT</b>	<b>LB</b>	<b>CR</b>	<b>ECTS</b>
MCE499	Industrial Practice II	0	0	0	4	MCE400	Graduation Thesis	0	2	1	2
MCE401	Factory Organization	2	0	2	3	ENG402	Engineering Ethics	2	0	2	2
MCE403	Machine Project I	2	0	2	2	MCE404	Machine Project II	2	0	2	2
ATE461	Engines	3	0	3	3	MCE406	Control Elements and Applications	3	0	3	4
	<b>Branch Elective Course (A<sub>1</sub>)</b>	3	0	3	5		<b>Branch Elective Course (A<sub>1</sub>)</b>	3	0	3	6
	<b>Branch Elective Course (A<sub>2</sub>)</b>	3	0	3	5		<b>Branch Elective Course (A<sub>2</sub>)</b>	3	0	3	6
	<b>Branch Elective Course (B<sub>1</sub>)</b>	2	0	2	4		<b>Branch Elective Course (B<sub>1</sub>)</b>	2	0	2	4
	<b>Branch Elective Course (B<sub>2</sub>)</b>	2	0	2	4		<b>Branch Elective Course (B<sub>2</sub>)</b>	2	0	2	4
	<b>Toplam</b>	<b>17</b>	<b>0</b>	<b>17</b>	<b>30</b>		<b>Toplam</b>	<b>17</b>	<b>2</b>	<b>18</b>	<b>30</b>

<b>Branch Elective Course (A) (Energy)</b>					
MCE407	Basics of HVAC	3	0	3	5
MCE409	Heat Exchangers	3	0	3	5
MCE411	Combustion Technology	3	0	3	5

<b>Branch Elective Course (A) (Energy)</b>					
MCE408	Thermic Turbo Machines	3	0	3	6
MCE410	Steam Boilers	3	0	3	6
MCE412	Thermal System Design	3	0	3	6

<b>Branch Elective Course (A) (Construction)</b>					
MCE413	Computer Aided Manufacturing	3	0	3	5
MCE415	Welding Technology	3	0	3	5
MCE417	Computer Aided Design II	3	0	3	5
MME461	Material Inspection	3	0	3	5

<b>Branch Elective Course (A) (Construction)</b>					
MCE414	Transport Techniques	3	0	3	6
MCE418	Mechanical Vibrations	3	0	3	6
MCE420	Die/Mold Design Techniques	3	0	3	6
MME460	Heat Treatment	3	0	3	6

<b>Branch Elective Course (B) (Energy)</b>					
MCE419	Thermal Insulation	2	0	2	4
MCE421	Nuclear Power Engineering	2	0	2	4
MCE423	Power Generation Systems	2	0	2	4
MCE425	Heat Economy	2	0	2	4
MCE427	Heat Pumps	2	0	2	4
MCE429	Gas Turbines	2	0	2	4
MCE441	Electric and Hybrid Vehicles	2	0	2	4
ATE461	Vehicle Technology	2	0	2	4

<b>Branch Elective Course (B) (Energy)</b>					
MCE422	Computational Fluid Dynamics	2	0	2	4
MCE424	LPG and Natural Gas Applications	2	0	2	4
MCE426	Pumps	2	0	2	4
MCE428	Heating System Design	2	0	2	4
MCE430	Air Conditioning and Ventilation Systems Design	2	0	2	4
MCE432	Drying Technique	2	0	2	4
MCE434	Aerodynamic	2	0	2	4
MCE436	Industrial Energy Efficiency	2	0	2	4

<b>Branch Elective Course (B) (Construction)</b>					
MCE431	Computer Applications in Construction	2	0	2	4

<b>Branch Elective Course (B) (Construction)</b>					
MCE438	Modern Welding Processes	2	0	2	4

MCE433	Ergonomic Product Design	2	0	2	4	MCE440	Constructive Computer Aided Styling	2	0	2	4
MCE435	Kinematic Synthesis	2	0	2	4	MCE442	Introduction to Biomechanics	2	0	2	4
MCE437	Control System Design	2	0	2	4	MCE444	Maintenance in Manufacturing	2	0	2	4
MCE439	Computational Methods in Mechanical Engineering	2	0	2	4	MCE446	Dynamic Systems Design	2	0	2	4
MME463	Powder Metallurgy	2	0	2	4	MCE448	Agricultural Machinery	2	0	2	4
MTE461	Robotics	2	0	2	4	MTE460	Mechatronics System Design	2	0	2	4
ATE461	Vehicle Technology	2	0	2	4	MME462	Plastic Forming	2	0	2	4
ATE465	Air and Space Vehicles	2	0	2	4	MME464	Composite Materials and Manufacturing Methods	2	0	2	4

2 courses will be selected in each semester depending on Branch Elective from "A" group courses

2 courses will be selected in each semester depending on Branch Elective from "B" group courses

"Industrial Practice" will be done according to the training regulation.

COURSE STATISTICS						
1	Total National Credits	168,5		6	Total Credits/ 128 Boundary Credits	%131,64
2	Total ECTS Credits	240,0		7	Total ECTS Credits / Total National Credits	%142,43
3	Total Credit of Elective Courses	34,0		8	Total Credit of Elective Courses / Total National Credits	%20,18
4	Total Time of Theoretical Courses	162,0		9	Total Time of Theoretical Courses / Total Time Courses	%92,57
5	Total Time of Practical Courses	13,0		10	Total Time of Practical Courses / Total Time Courses	%7,43