

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

CURRICULUM

(Amended at University Senate in 21.04.2005 and with the number of 2005/06)

1.TERM						2.TERM									
CODE	COURSE	L	A	Lab	Cr	ECTS	CODE	COURSE	L	A	Lab	Cr	ECTS		
0251321	Mathematics I	3	2	0	4	6	0251322	Mathematics II	3	2	0	4	6		
0221901	Physics I	3	0	2	4	6	0221902	Physics II	3	0	2	4	6		
9051031	Advanced English I	3	0	0	3	3	9051032	Advanced English II	3	0	0	3	3		
9061011	Turkish I	2	0	0	2	2	0241100	General Chemistry	3	0	2	4	6		
9011011	Princ.of Atatürk and Hist.of Rev. I	2	0	0	2	2	9061012	Turkish II	2	0	0	2	2		
	Basic Culture	3	0	0	3	3	0651822	Project Geometry & Tech.Drawing	3	2	0	4	6		
0541011	Intro. to Metal. & Mater. Sci. Eng.	2	0	0	2	6									
TOTAL CREDITS OF 1.TERM						20	28	TOTAL CREDITS OF 2.TERM						21	29
3.TERM						4.TERM									
CODE	COURSE	L	A	Lab	Cr	ECTS	CODE	COURSE	L	A	Lab	Cr	ECTS		
0522051	Engineering Mathematics	3	0	0	3	5	0542042	Solidification & Phase Diagrams	4	0	0	4	5		
0542021	Materials I	3	0	0	3	6	0522162	Statics & Strength of Materials	2	0	0	2	5		
0542031	Metallurgical Thermodynamics	4	2	0	5	7	0542052	Materials II	3	0	0	3	6		
9052031	Reading & Speaking in English	3	0	0	3	3	0542062	Principals of Extractive Metallurgy	4	1	1	5	7		
9031130	Basic Computer Science	2	2	0	3	4	9011012	Princ.of Atatürk and Hist.of Rev. II	2	0	0	2	2		
	University Elective Course	3	0	0	3	3	0542072	Technical English	2	0	0	2	2		
	Basic Engineering Elective Courses I	2	0	0	2	4		Basic Engineering Elective Courses II	2	0	0	2	4		
0542501	Electric Electronic						0542542	X-Rays							
0512121	Fluid Mechanics						0542552	Chemical Analysis							
0542511	Standardization						0512532	Heat & Mass Transfer							
0542211	Mineralogy						0542562	Raw Materials & Mineral Processing							
0542521	Metrology & Calibration						0542572	Computer Aided Design							
0542531	Metllurgical Fuels & Raw Materials						0542582	Metallurgical Pre-Treatment							
							0542592	Material & Energy Balance							
							05425102	Materials Mechanics							
TOTAL CREDITS OF 3.TERM						22	32	TOTAL CREDITS OF 4.TERM						20	31
5.TERM						6.TERM									
CODE	COURSE	L	A	Lab	Cr	ECTS	CODE	COURSE	L	A	Lab	Cr	ECTS		
0543081	Mechanical Metallurgy	2	0	2	3	4	0543132	Mat. Structure & Metallography	3	0	2	4	6		
0543091	Polymer Materials	3	0	0	3	4	0543142	Iron & Steelmaking	3	0	0	3	5		
0543101	Kinetics	2	0	0	2	3	0543152	Ceramics	3	0	0	3	5		
0543111	Heat Treatment	3	0	0	3	4	0543162	Forming of Materials	4	0	0	4	6		
0543131	Biomaterials	3	0	0	3	4	9053032	Business English	2	0	0	2	2		
0543121	Technical English II	2	0	0	2	2		Core Elective Course II	2	0	0	2	4		
	Free Elective Course	3	0	0	0	4	0543672	Nondestructive Testing							
	Core Elective Course I	2	0	0	2	4	0543682	Electrometallurgy							
0543601	Special Steels						0543692	Glass Science & Technology							
0543611	Hydrometallurgy						0543702	Industrial Furnaces							
0543621	Refractory Materials						0543712	Solvent Extraction							
0543631	Plasticity						0543722	Ferroalloys							
0543641	Welding Metallurgy						0543732	Thermal, Optic & Photonic Properties of Materials							
0543651	Metallurgical Plants Elements						0543742	Machining Processes							
0543661	Metal Refination														
0543671	Structure & Properties of Ceramics														
TOTAL CREDITS OF 5.TERM						18	29	TOTAL CREDITS OF 6.TERM						18	28

7.TERM						8.TERM											
CODE	COURSE	L	A	Lab	Cr	ECTS	CODE	COURSE	L	A	Lab	Cr	ECTS				
0544191	Composite Materials	3	0	0	3	4	0544232	Entrepreneurship & Plant Planning	3	0	0	3	4				
0544201	Corrosion & Control	3	0	0	3	4	0544242	Materials Process Laboratory	2	0	2	3	6				
0544211	Non-Ferrous Metal Production	3	0	0	3	4	0544252	Metallurgical Process Laboratory	2	0	2	3	6				
0544231	Foundary Technology	4	2	2	6	7	0544262	Graduation Project	2	4	4	6	12				
0544221	Design App.of Metallurgy & Mater.	2	1	1	3	8	Core Elective Course IV						2	0	0	2	4
Core Elective Course III		2	0	0	2	4	0544832	Metal. Wastes & Environmental Control									
0544751	Electrical & Magnetic Materials						0544842	Surface Treatments									
0544761	Innovatice Materials						0544852	Economical Metallurgy									
0544771	Powder & Nano Materials						0544862	Quality & Effectiveness									
0544781	Advanced Technology Ceramics						0544872	Metallurgy of Rare & Precious Metals									
0544791	Special Casting Processes						0544882	Modelling of Metallurgical Process									
0544801	Materials Design & Selection																
0544811	New Technologies in Iron-Steel Production																
0544821	Complex Ore Metallurgy																
TOTAL CREDITS OF 7.TERM					20	31	TOTAL CREDITS OF 8.TERM					17	32				
										SUM OF CREDITS		156	240				