

## MECHANICAL ENGINEERING COURSE CONTENTS

<b>1st Semester Lesson Plan</b>							
Course Code	Course Name	T+U+L	Compulsory / Elective	ECTS	Group Code	Number of Group Courses	
ATA 101	Principles of Ataturk and Revolution History I	2+0+0	Mandatory	2			
FIZ 101	Physics I	3+2+0	Mandatory	7			
KIM 101	General Chemistry I	3+0+0	Mandatory	3			
MAK 101	Introduction to Mechanical Engineering and Ethics	3+0+0	Mandatory	5			
MAK 105	Linear Algebra	2+0+0	Mandatory	2			
MAT 101	Mathematics I	4+0+0	Mandatory	7			
TDL 101	Turkish Language I	2+0+0	Mandatory	2			
EAP 101	English for Academic Purposes I	2+0+0	Mandatory	2			
				Total ECTS	30		
<b>2nd Semester Course Plan</b>							
Course Code	Course Name	T+U+L	Compulsory / Elective	ECTS	Group Code	Number of Group Courses	
ATA 102	Principles of Ataturk and Revolution History II	2+0+0	Mandatory	2			
FIZ 102	Physics II	3+2+0	Mandatory	7			
KRY 100	Career Planning	1+0+0	Mandatory	2			
MAK 102	Statics	3+0+0	Mandatory	4			
MAK 104	Technical and Computer Aided Drawing	2+0+0	Mandatory	2			
MAK 108	Computer Technology	2+0+0	Mandatory	2			
MAT 102	Mathematics II	4+0+0	Mandatory	7			
TDL 102	Turkish Language II	2+0+0	Mandatory	2			
EAP 102	English for Academic Purposes II	2+0+0	Mandatory	2			
				Total ECTS	30		
<b>3rd Semester Course Plan</b>							
Course Code	Course Name	T+U+L	Compulsory / Elective	ECTS	Group Code	Number of Group Courses	
MAK 201	Materials Science and Technology	3+0+0	Mandatory	5			
MAK 203	Thermodynamics	3+0+0	Mandatory	3			

	MAK 205	Dynamics	3+0+0	Mandatory	4		
	MAK 207	Strength of Materials I	3+0+0	Mandatory	4		
	MAK 209	Computer Aided Design	3+0+0	Mandatory	5		
	MAT 201	Differential Equations	4+0+0	Mandatory	7		
[G]	PFE I	Formation Courses	-	Elective	4		1
[G]	USEC I	University Elective Courses I	-	Elective	2		1
				Total ECTS	34		
		<b>4th Semester Course Plan</b>					
	Course Code	Course Name	T+U+L	Compulsory / Elective	ECTS	Group Code	Number of Group Courses
	MAK 202	Fundamentals of Electricity	2+0+0	Mandatory	4		
	MAK 204	Fluid Mechanics	3+0+0	Mandatory	4		
	MAK 206	Manufacturing Processes	3+0+0	Mandatory	4		
	MAK 208	Heat Transfer	3+0+0	Mandatory	4		
	MAK 210	Computer Aided Engineering	2+0+0	Mandatory	3		
	MAK 212	Social Responsibility Projects and Volunteering Studies	1+2+0	Mandatory	2		
	MAT 202	Numerical Analysis	4+0+0	Mandatory	7		
[G]	PFE II	Formation Courses	-	Elective	4		1
[G]	USEC II	University Elective Courses II	-	Elective	2		1
				Total ECTS	34		
		<b>5th semester lesson plan</b>					
	Course Code	Course Name	T+U+L	Compulsory / Elective	ECTS	Group Code	Number of Group Courses
	IGS 301	Occupational Health and Safety-I	2+0+0	Mandatory	2		
	MAK 301	Probability	3+0+0	Mandatory	6		
	MAK 303	Machine Elements I	3+0+0	Mandatory	6		
	MAK 307	Machining	2+0+0	Mandatory	4		
	MAK 309	Machine Dynamics	3+0+0	Mandatory	6		
[G]	PFE III	Formation Courses	-	Elective	4		1
[G]	SECP I	Elective Programming Course Group	-	Elective	6		1
				Total ECTS	34		
		<b>6th semester lesson plan</b>					

	Course Code	Course Name	T+U+L	Compulsory / Elective	ECTS	Group Code	Number of Group Courses	
	IGS 302	Occupational Health and Safety-II	2+0+0	Mandatory	2			
	MAK 302	Statistics	3+0+0	Mandatory	6			
	MAK 304	Machine Elements II	3+0+0	Mandatory	6			
	MAK 306	Automatic Control	3+0+0	Mandatory	6			
	MAK 308	Research Methods	2+0+0	Mandatory	3			
	MAK 310	Summer Practice	0+0+0	Mandatory	4			
	MAK 312	Entrepreneurship	2+0+0	Mandatory	3			
[G]	PFE IV	Formation Courses	-	Elective	4		1	
				Total ECTS	34			
		<b>7th semester lesson plan</b>						
	Course Code	Course Name	T+U+L	Compulsory / Elective	ECTS	Group Code	Number of Group Courses	
	MAK 401	Engineering Project (MP)	3+0+0	Mandatory	6			
[G]	PFE V	Formation Courses	-	Elective	10		1	
[G]	SEC I	Elective Courses I	-	Elective	24		4	
				Total ECTS	40			
		<b>8th semester lesson plan</b>						
	Course Code	Course Name	T+U+L	Compulsory / Elective	ECTS	Group Code	Number of Group Courses	
	MAK 402	Graduation Project	0+2+0	Mandatory	2			
	MAK 404	Mechanical Engineering Laboratory	2+2+0	Mandatory	4			
[G]	SEC II	Elective Courses II	-	Elective	24		4	
				Total ECTS	30			

		<b>3rd Semester Elective Courses PFE I coded</b>						
[G]	PFE I	Formation Courses	-	Elective	4		1	
	PF 101	Introduction to Education	3+0+0	Elective	4	PFE I		
	PF 107	Educational Psychology	3+0+0	Elective	4	PFE I		
		<b>4th Semester Elective Courses PFE II coded</b>						
[G]	PFE II	Formation Courses	-	Elective	4		1	

	PF 103	Teaching Principles and Methods	3+0+0	Elective	4	PFE II	
	PF 104	Instructional Technologies	2+2+0	Elective	3	PFE II	
		<b>3rd and 4th Semester Elective Courses USEC I, USEC II coded</b>					
[G]	USEC I	University Elective Courses I	-	Elective	2		1
	USEC 104	Photography	2+0+0	Elective	2	USEC I,USEC II	
	USEC 102	History of science	2+0+0	Elective	2	USEC I,USEC II	
	USEC 103	Electrical and electronic engineering education	2+0+0	Elective	2	USEC I,USEC II	
	USEC 105	Entrepreneurship	2+0+0	Elective	2	USEC I,USEC II	
	USEC 106	Fine arts	2+0+0	Elective	2	USEC I,USEC II	
	USEC 107	History of the moving image	2+0+0	Elective	2	USEC I,USEC II	
	USEC 108	Latin dances	1+2+0	Elective	2	USEC I,USEC II	
	USEC 109	Engineering education methods	0+4+0	Elective	2	USEC I,USEC II	
	USEC 110	Music culture	2+0+0	Elective	2	USEC I,USEC II	
	USEC 111	Musical sound theory	2+0+0	Elective	2	USEC I,USEC II	
	USEC 112	Rhythm Education and Dance	1+2+0	Elective	2	USEC I,USEC II	
	USEC 113	Social responsibility project	2+0+0	Elective	2	USEC I,USEC II	
	USEC 114	Turkish folk dances	1+2+0	Elective	2	USEC I,USEC II	
	USEC 115	Applied sport	1+2+0	Elective	2	USEC I,USEC II	
	USEC 116	Sociology	2+0+0	Elective	2	USEC I,USEC II	
	USEC 118	Basic Concepts of Politics	2+0+0	Elective	2	USEC I,USEC II	
	USEC 120	Current Issues in World Politics	2+0+0	Elective	2	USEC I,USEC II	
	USEC 122	Modern Conflicts in World Politics	2+0+0	Elective	2	USEC I,USEC II	
	USEC 124	2D Animation	2+0+0	Elective	2	USEC I,USEC II	
	USEC 126	3D Design	2+0+0	Elective	2	USEC I,USEC II	
	USEC 128	Fundamentals of Economics	2+0+0	Elective	2	USEC I,USEC II	
	USEC 130	Current Economic Developments	2+0+0	Elective	2	USEC I,USEC II	
	USEC 132	Recruitment Skills and Interview Techniques	2+0+0	Elective	2	USEC I,USEC II	
	USEC 134	Employee Rights in Business Life	2+0+0	Elective	2	USEC I,USEC II	
	USEC 136	Strategic Human Resources Management and Applications	2+0+0	Elective	2	USEC I,USEC II	
	USEC 138	Individual Career Management	2+0+0	Elective	2	USEC I,USEC II	

	USEC 140	Social Security Practices in Turkey	2+0+0	Elective	2	USEC I,USEC II	
	USEC 142	Current Approaches in Human Resources Management	2+0+0	Elective	2	USEC I,USEC II	
	USEC 146	Current Issues in Finance	2+0+0	Elective	2	USEC I,USEC II	
	USEC 148	Current Issues in Accounting	2+0+0	Elective	2	USEC I,USEC II	
	USEC 150	Current Issues in Management	2+0+0	Elective	2	USEC I,USEC II	
	USEC 152	Current Issues in Marketing	2+0+0	Elective	2	USEC I,USEC II	
	USEC 154	Digital Marketing	2+0+0	Elective	2	USEC I,USEC II	
	USEC 156	Public Finance	2+0+0	Elective	2	USEC I,USEC II	
	USEC 158	Tax Law	2+0+0	Elective	2	USEC I,USEC II	
	USEC 160	Public Budget	2+0+0	Elective	2	USEC I,USEC II	
	USEC 162	Turkish Tax System	2+0+0	Elective	2	USEC I,USEC II	
	USEC 170	Music Culture and Society	2+0+0	Elective	2	USEC I,USEC II	
	USEC 172	Psychodrama Techniques	2+0+0	Elective	2	USEC I,USEC II	
	USEC 174	Education Program Design	2+0+0	Elective	2	USEC I,USEC II	
	USEC 176	3D Animation	2+0+0	Elective	2	USEC I,USEC II	
	USEC 178	Urbanization Policies	2+0+0	Elective	2	USEC I,USEC II	
	USEC 180	General Principles of Constitutional Law	2+0+0	Elective	2	USEC I,USEC II	
	USEC 182	Criminal Law	2+0+0	Elective	2	USEC I,USEC II	
	USEC 184	Professional foreign language 2	1+2+0	Elective	2	USEC I,USEC II	
	USEC 185	EU's Energy Policy	2+0+0	Elective	2	USEC I,USEC II	
	USEC 186	Globalization and Politics	2+0+0	Elective	2	USEC I,USEC II	
	USEC 187	Peace and Conflict	2+0+0	Elective	2	USEC I,USEC II	
	USEC 188	Gender and Politics	2+0+0	Elective	2	USEC I,USEC II	
	USEC 189	Development of Administrative Thought	2+0+0	Elective	2	USEC I,USEC II	
	USEC 190	Current Issues in Public Finance	2+0+0	Elective	2	USEC I,USEC II	
	USEC 191	Technical English	2+0+0	Elective	2	USEC I,USEC II	
	USEC 192	PROTECTION, MAINTENANCE AND PROMOTION OF HEALTH	2+0+0	Elective	2	USEC I,USEC II	
	USEC 193	INTRODUCTION TO ARCHAEOLOGY	2+0+0	Elective	2	USEC I,USEC II	
	USEC 194	ANATOLIAN ARCHAEOLOGY	2+0+0	Elective	2	USEC I,USEC II	
	USEC 195	NEW MEDIA STUDIES	2+0+0	Elective	2	USEC I,USEC II	
	USEC 196	SOCIOLOGY OF SMALL GROUPS	2+0+0	Elective	2	USEC I,USEC II	

USEC 197	OTTOMAN TURKISH I	2+0+0	Elective	2	USEC I,USEC II
USEC 198	OTTOMAN TURKISH II	2+0+0	Elective	2	USEC I,USEC II
USEC 199	DEDE KORKUT READINGS	2+0+0	Elective	2	USEC I,USEC II
USEC 200	INTANGIBLE CULTURAL HERITAGE AND PROTECTION	2+0+0	Elective	2	USEC I,USEC II
USEC 201	KOKTURKISH TEXT READINGS	2+0+0	Elective	2	USEC I,USEC II
USEC 202	INTRODUCTION TO PSYCHOLOGY	2+0+0	Elective	2	USEC I,USEC II
USEC 203	DEVELOPMENTAL PSYCHOLOGY	2+0+0	Elective	2	USEC I,USEC II
USEC 204	INTRODUCTION TO PSYCHOLOGY	2+0+0	Elective	2	USEC I,USEC II
USEC 205	DEVELOPMENTAL PSYCHOLOGY	2+0+0	Elective	2	USEC I,USEC II
USEC 206	BASIC MATHEMATICS	2+0+0	Elective	2	USEC I,USEC II
USEC 207	ANALYTIC GEOMETRY	2+0+0	Elective	2	USEC I,USEC II
USEC 208	ADVANCED WRITING I	2+0+0	Elective	2	USEC I,USEC II
USEC 209	ADVANCED WRITING II	2+0+0	Elective	2	USEC I,USEC II
USEC 210	BASIC ORGANIC CHEMISTRY	2+0+0	Elective	2	USEC I,USEC II
USEC 211	THE HEALING POWER OF PLANTS-PHYTOTHERAPY	2+0+0	Elective	2	USEC I,USEC II
USEC 212	CONCEPTS OF AESTHETICS AND ART	2+0+0	Elective	2	USEC I,USEC II
USEC 213	POPULAR MUSIC GROUP	2+0+0	Elective	2	USEC I,USEC II
USEC 214	BASIC CONCEPTS OF HEALTHY NUTRITION	2+0+0	Elective	2	USEC I,USEC II
USEC 215	HEALTHY EATING PATTERNS	2+0+0	Elective	2	USEC I,USEC II
USEC 216	GROUP DYNAMICS AND LEADERSHIP	2+0+0	Elective	2	USEC I,USEC II
USEC 217	PHYSICAL EDUCATION AND SPORTS FOR THE DISABLED	2+0+0	Elective	2	USEC I,USEC II
USEC 218	HEALTHY LIVING AND PHYSICAL ACTIVITY	2+0+0	Elective	2	USEC I,USEC II
USEC 219	HEALTHY LIVING AND EXERCISE	2+0+0	Elective	2	USEC I,USEC II
USEC 220	STRESS MANAGEMENT	2+0+0	Elective	2	USEC I,USEC II
USEC 221	CRITICAL THINKING	2+0+0	Elective	2	USEC I,USEC II
USEC 222	Traditional Anatolian Houses	2+0+0	Elective	2	USEC I,USEC II
USEC 223	Structural Systems of High-Rise Buildings	2+0+0	Elective	2	USEC I,USEC II
USEC 224	Environmental Problems	2+0+0	Elective	2	USEC I,USEC II
USEC 225	Nature Conservation	2+0+0	Elective	2	USEC I,USEC II
USEC 226	Urban Utopias	2+0+0	Elective	2	USEC I,USEC II
USEC 227	Urban Utopias	2+0+0	Elective	2	USEC I,USEC II

	USEC 228	Information Technologies and the City	2+0+0	Elective	2	USEC I,USEC II	
	USEC 229	Information technology and the city	2+0+0	Elective	2	USEC I,USEC II	
	USEC 230	INTERPROFESSIONAL EDUCATION IN HEALTH PROFESSIONALS	2+0+0	Elective	2	USEC I,USEC II	
	USEC 231	GLASS MOZAIK	2+0+0	Elective	2	USEC I,USEC II	
	USEC 243	Gender Equality in the European Union during Covid19	2+0+0	Elective	2	USEC I,USEC II	
	USEC 245	Japanese	2+0+0	Elective	2	USEC I,USEC II	
	USEC 247	Diction	2+0+0	Elective	2	USEC I,USEC II	
	USEC 248	Mathematical Modeling Techniques	3+0+0	Elective	6	USEC I,USEC II	
	USEC 249	Optimization Techniques in Industrial Engineering	3+0+0	Mandatory	6	USEC I,USEC II	
	USEC 250	Basic Topics in Industrial Engineering	3+0+0	Elective	6	USEC I,USEC II	
	USEC 901	Robotics in Health	2+0+0	Elective	2	USEC I,USEC II	
	USEC 902	Current Topics in Biomedical Engineering	2+0+0	Elective	2	USEC I,USEC II	
	USEC 903	Introduction to Biomedical Technology	2+0+0	Elective	2	USEC I,USEC II	
	USEC 904	Social Responsibility Project	1+2+0	Elective	2	UUSEC I,USEC II,USEC I	
		<b>5th Semester Elective Courses Coded PFE III</b>					
[G]	PFE III	Formation Courses	-	Elective	4		1
	PF 105	Measurement and Evaluation in Education	3+0+0	Elective	4	PFE III	
	PF 109	Classroom Management	2+0+0	Elective	3	PFE III	
		<b>5th Semester Elective Courses SECP I coded</b>					
[G]	SECP I	Elective Programming Course Group	-	Elective	6		1
	MAK 311	Programming with C/C++	3+0+0	Elective	6	SECP I	
	MAK 313	Programming with Matlab	3+0+0	Elective	6	SECP I	
		<b>6th Semester Elective Courses Coded PFE IV</b>					
[G]	PFE IV	Formation Courses	-	Elective	4		1
	PF 102	Special Teaching Methods	3+2+0	Elective	4	PFE IV	
	PF 106	Guidance and Special Education	3+0+0	Elective	4	PFE IV	
		<b>7th Semester Elective Courses Coded PFE V</b>					
[G]	PFE V	Formation Courses	-	Elective	10		1
	PF 108	Teaching Practice	1+8+0	Elective	10	PFE V	
		<b>7th Semester Elective Courses SEC I coded</b>					
[G]	SEC I	Elective Courses I	-	Elective	24		4

	MAK 403	Solar Energy and Applications	3+0+0	Elective	6	SEC I	
	MAK 405	Non-destructive Inspection	3+0+0	Elective	6	SEC I	
	MAK 407	Heating and Cooling Technique	3+0+0	Elective	6	SEC I	
	MAK 409	Fuels and Combustion	3+0+0	Elective	6	SEC I	
	MAK 411	Energy Management	3+0+0	Elective	6	SEC I	
	MAK 413	Welding Technology	3+0+0	Elective	6	SEC I	
	MAK 415	Mechanical Vibrations	3+0+0	Elective	6	SEC I	
	MAK 417	Wind Energy and Applications	3+0+0	Elective	6	SEC I	
	MAK 419	Plastic Forming	3+0+0	Elective	6	SEC I	
	MAK 421	Advanced Strength	3+0+0	Elective	6	SEC I	
	MAK 423	Advanced English I	3+0+0	Elective	6	SEC I	
	<b>8th Semester Elective Courses SEC II coded</b>						
[G]	SEC II	Elective Courses II	-	Elective	24		4
	MAK 406	Thermal Power Plants	3+0+0	Elective	6	SEC II	
	MAK 408	Heat Treatment	3+0+0	Elective	6	SEC II	
	MAK 410	Geothermal Energy and District Heating Systems.	3+0+0	Elective	6	SEC II	
	MAK 412	Material Selection	3+0+0	Elective	6	SEC II	
	MAK 414	Corrosion	3+0+0	Elective	6	SEC II	
	MAK 416	Entrepreneurship Project	3+0+0	Elective	6	SEC II	
	MAK 418	System Dynamics and Simulation	3+0+0	Elective	6	SEC II	
	MAK 420	Advanced English-II	3+0+0	Elective	6	SEC II	