

T.C. KİLİS 7 ARALIK UNIVERSITY FACULTY OF ENGINEERING AND ARCHITECTURE DEPARTMENT OF MECHANICAL ENGINEERING
UNDERGRADUATE COURSE CATALOG

FIRST YEAR													
Code	1st Grade I. Semester (I. Semester)	Status	T	U	K	ECTS	Code	1st Grade 2nd Semester (2nd Semester)	Status	T	U	K	ECTS
0605101	Mathematics-I	Mandatory	4	0	4	5	0605102	Mathematics-II	Mandatory	4	0	4	5
0605103	Physics-I	Mandatory	4	0	4	5	0605104	Physics-II	Mandatory	4	0	4	4
0605105	General Chemistry	Mandatory	3	1	4	4	0605106	Engineering Mechanics-I (Static)	Mandatory	4	0	4	5
0605107	Computer Aided Drawing-I	Mandatory	3	1	4	5	0605108	Computer Aided Drawing-II	Mandatory	3	1	4	5
0101101	Turkish Language-I	Mandatory	2	0	2	2	0101102	Turkish Language-II	Mandatory	2	0	2	2
0102101	Principles of Atatürk and History of Turkish Revolution- I	Mandatory	2	0	2	2	0102102	Principles of Atatürk and History of Turkish Revolution -II	Mandatory	2	0	2	2
0103101	English-I	Mandatory	3	0	3	3	0103102	English-II	Mandatory	3	0	3	3
	TOTAL		21	2	23	26		TOTAL		22	1	23	26
	Social Elective Course	Elective	2	0	2	2		Social Elective Course	Elective	2	0	2	2
	Social Elective Course	Elective	2	0	2	2		Social Elective Course	Elective	2	0	2	2
	PERIOD TOTAL		25	2	27	30		PERIOD TOTAL		26	1	27	30
	SOCIAL ELECTIVES							SOCIAL ELECTIVES					
0104101	Physical Education-I	Elective	2	0	2	2	0104102	Physical Education-II	Elective	2	0	2	2
0105101	Music-I	Elective	2	0	2	2	0105102	Music-II	Elective	2	0	2	2
0605001	Awareness of Food Production	Elective	2	0	2	2	0605002	Engineering Ethics	Elective	2	0	2	2
0605003	Basic Computer Knowledge	Elective	2	0	2	2	0105004	Computer Aided Presentation Techniques	Elective	2	0	2	2
SECOND YEAR													
Code	2nd Grade I. Semester (III. Semester)	Status	T	U	K	ECTS	Code	2nd Grade 2nd Semester (IV. Semester)	Status	T	U	K	ECTS
0605201	Strength of Materials- I	Mandatory	4	0	4	5	0605202	Thermodynamics-I	Mandatory	4	0	4	5
0605203	Materials Science-I	Mandatory	3	1	4	5	0605204	Numerical Methods	Mandatory	3	0	3	4
0605205	Differential Equations	Mandatory	3	0	3	4	0605206	Engineering Mechanics-II (Dynamics)	Mandatory	4	0	4	5
0605207	Manufacturing Processes-I	Mandatory	3	2	5	5	0605208	Materials Science-II	Mandatory	3	1	4	5
0605209	Computer Programming	Mandatory	2	1	3	3	0605210	Manufacturing Processes-II	Mandatory	3	2	5	6
0605211	Electrotechnics	Mandatory	2	1	3	3	0111102	Occupational Health and Safety-II	Mandatory	2	0	2	2
0111101	Occupational Health and Safety-I	Mandatory	2	0	2	2		TOTAL		19	3	22	27
0112100	Digital Literacy	Mandatory	2	0	0	3							
	TOTAL		21	5	24	30	0605298	Internship-I (20 working days)	Mandatory	0	0	0	3
	PERIOD TOTAL		21	5	24	30		PERIOD TOTAL		19	3	22	30
THIRD YEAR													
Code	Grade 3 I. Semester (V. SEMESTER)	Status	T	U	K	ECTS	Code	3rd Grade 2nd Semester (VI. Semester)	Status	T	U	K	ECTS
0605301	Machine Elements-I	Mandatory	4	0	4	5	0605302	Machine Elements-II	Mandatory	4	0	4	5
0605303	Thermodynamics-II	Mandatory	3	1	4	5	0605304	Machine Dynamics	Mandatory	4	0	4	5
0605305	Theory of Machines	Mandatory	3	0	3	5	0605306	Heat Transfer	Mandatory	4	0	4	4
0605307	Fluid Mechanics-I	Mandatory	2	1	3	5	0605308	Fluid Mechanics-II	Mandatory	3	1	4	5
	TOTAL		10	2	14	20	0101101	Social responsibility	Mandatory	1	1	2	2
	Social Elective Course	Elective	2	0	2	2		TOTAL		16	2	18	21
	Social Elective Course	Elective	2	0	2	2	0605398	Internship-II (20 working days)	Mandatory	0	0	0	3
	Technical Elective Course	Elective	3	0	3	3		Technical Elective Course	Elective	3	0	3	3
	Technical Elective Course	Elective	3	0	3	3		Technical Elective Course	Elective	3	0	3	3
	PERIOD TOTAL		20	4	24	30		PERIOD TOTAL		22	2	24	30
	SOCIAL ELECTIVES							TECHNICAL ELECTIVES					
0605011	Healthy Life and Sports	Elective	2	0	2	2	0605032	Introduction to Finite Elements	Elective	3	0	3	3
0605013	Foreign Language	Elective	2	0	2	2	0605034	Renewable Energy Sources	Elective	3	0	3	3
0605015	Ethics and values Education	Elective	2	0	2	2	0605036	Building Installation	Elective	3	0	3	3
0605017	Traditional Handicrafts	Elective	2	0	2	2	0605038	Engineering Economics	Elective	3	0	3	3
0605019	Fine Arts	Elective	2	0	2	2	0605040	Professional English-II	Elective	3	0	2	3
	TECHNICAL ELECTIVES												
0605031	Computer Aided Design	Elective	3	0	3	3							
0605033	Creative Problem-Solving Techniques	Elective	3	0	3	3							
0605035	Vehicle Technique	Elective	3	0	3	3							
0605037	Material Selection in Design and Manufacturing	Elective	3	0	3	3							
0605039	Professional English-I	Elective	3	0	2	3							
FOURTH YEAR													
Code	Grade 4 I. Semester (VII. Semester)	Status	T	U	K	ECTS	Code	4th Grade 2nd Semester (VIII. Semester)	Status	T	U	K	ECTS
0605401	Machine Laboratory	Mandatory	0	3	3	5	0605402	Graduation Project	Mandatory	0	3	3	5
0605403	Measurement Technique	Mandatory	2	1	3	5	0605404	Computer Aided Engineering	Mandatory	2	1	3	5
	TOTAL		2	4	6	10		TOTAL		2	4	6	10
	Design Applications-I	Elective	3	1	4	5		Design Applications-II	Elective	3	1	4	5
	Technical Elective Course	Elective	3	0	3	5		Technical Elective Course	Elective	3	0	3	5
	Technical Elective Course	Elective	3	0	3	5		Technical Elective Course	Elective	3	0	3	5
	Technical Elective Course	Elective	3	0	3	5		Technical Elective Course	Elective	3	0	3	5
	PERIOD TOTAL		14	5	19	30		PERIOD TOTAL		14	5	19	30
	DESIGN. IMPLEMENTATION.							DESIGN. IMPLEMENTATION.					

ELECTIVE COURSES							ELECTIVE COURSES						
0605041	Natural Gas System Design. And Application.	Elective	3	1	4	5	0605040	Heat Exchangers Design and Application.	Elective	3	1	4	5
0605043	Heating System Design and Application	Elective	3	1	4	5	0605042	Machine Elements Design and Application.	Elective	3	1	4	5
0605045	Solar Energy Design. And Application.	Elective	3	1	4	5	0605044	Motor Vehicles Design and Application.	Elective	3	1	4	5
0605047	Robotic Design and Application.	Elective	3	1	4	5	0605046	Control Systems Design and Application.	Elective	3	1	4	5
0605049	Manufacturing Procedures Design and Application.	Elective	3	1	4	5	0605048	Air Conditioning Design and Application.	Elective	3	1	4	5
0605051	Construction Machinery Design and Application.	Elective	3	1	4	5	0605050	Surface Treatment Design and Application.	Elective	3	1	4	5
TECHNICAL ELECTIVES							TECHNICAL ELECTIVES						
0605061	Composite Materials	Elective	3	0	3	5	0605060	Engineering and Nano Technology	Elective	3	0	3	5
0605063	Computer Aided Manufacturing-I	Elective	3	0	3	5	0605062	Advanced Manufacturing Methods	Elective	3	0	3	5
0605065	Plastic Materials	Elective	3	0	3	5	0605064	Computer Aided Manufacturing-II	Elective	3	0	3	5
0605067	Welding Technology	Elective	3	0	3	5	0605066	Nondestructive Inspection Methods	Elective	3	0	3	5
0605069	Heating Ventilation Air Conditioning	Elective	3	0	3	5	0605068	Introduction to Biomechanics	Elective	3	0	3	5
0605071	Heat Exchangers	Elective	3	0	3	5	0605070	Internal Combustion Engines	Elective	3	0	3	5
0605073	Hydraulic Machines	Elective	3	0	3	5	0605072	Cooling Technique	Elective	3	0	3	5
0605075	Modeling with Finite Elements	Elective	3	0	3	5	0605074	Natural Gas Technology	Elective	3	0	3	5
0605077	Energy Management	Elective	3	0	3	5	0605076	Hydraulic and Pneumatic Circuits	Elective	3	0	3	5
0605079	Transport Technique	Elective	3	0	3	5	0605078	Advanced Strength	Elective	3	0	3	5
0605081	Control Systems Design	Elective	3	0	3	5	0605080	Control Element Applications	Elective	3	0	3	5
0605083	Factory Design	Elective	3	0	3	5	0605082	Kinematic Synthesis of Mechanisms	Elective	3	0	3	5

COMPULSORY COURSES 170 AKTS (70,83%)
INTERNSHIP 6 ECTS 2,5%)

SOCIAL ELECTIVES: 12 AKTS (5%) TECHNICAL ELECTIVES: 52 AKTS (21,67%)
240 ECTS IN TOTAL (100%)