INFORMATION ON THE MECHANICAL ENGINEERING BACHELOR DEGREE PROGRAM	
General Information	Highly qualified mechanical engineers are graduated after succesful completion of 8 semester in-scholl eduation and 3 semester cooperative education
Program Purpose	We graduate mechanical engineers with mechanical and thermal design ability and experience of manufacturing processes
Degree Earned	Stıdents who complete the department are entitled to receive a Mechanical Engineer Bachelor Degree.
Level of Degree Earned	Bachelor Degree (NQF-HETR 6. Level)
Requirements and Rules of the Degree Earned	Based on the University regulations
Registration Admission Requirements	Based on the University regulations
Recognition of Prior Learning	Evaluated based on the course content
Examinations, Assessment and Grading	Based on the University regulations
Teaching Style	Full time education
Graduation Requirements	Based on the University regulations
Occupational Profiles of Graduated-Employment Opportunities	Graduates are employed by defence, automotive, machine production, energy and construction companies
Transition to a Upper Degree	Graduates can apply for a graduate level education

NQF-HETR PROGRAM QUALIFICATION MATRIX				PROGRAM QUALIFICATIONS										
Program : Mechanical Engineering														
Related NQF-HETR Core Field: Engineering (Academic) - Bachelor Degree				1	2	3	4	5	6	7	8	9	10	11
CORE AREA QUALIFICATIONS	INFORMATION	Theoretical - Factual	Has the infrastructure in mathematics, science and engineering related to their branches.	X	X	X		X						X
	SKILLS	Cognitive - Applied	Uses mathematics, science and their theoretical and practical knowledge in their fields for engineering solutions.	X	X	X		X						X
			Identifies, defines, formulates and solves engineering problems, selects and applies appropriate analytical and modal techniques for this purpose.	X				X						X
			Analyzes a system, system component or process and design it under realistic constraints to meet the required requirements; he/she implements modern design methods in this direction.		X	X								
			Selects and uses the modern techniques and tools necessary for engineering applications.					X						X
			Designs experiments, conduct experiments, analyze and interpret data collection results.		X									X
	COMPETENCIES	Ability to work independently and to take responsibility	Works effectively on individual and multidisciplinary teams.				X							
			Gains access to information and research resources for this purpose, using databases and other sources of information.									X		X
		Learning Competence	Gains access to information and research resources for this purpose, using databases and other sources of information.									X		X
			Is aware of the necessity of lifelong learning; monitors developments in science and technology, and constantly innovates itself.									X		
			Uses mathematics, science and their theoretical and applied knowledge in their fields for engineering solutions.	X	X	X		X						X
			Identifies, defines, formulates and solves engineering problems, selects and applies appropriate analytical and modal techniques for this purpose.	X				X						X
			Analyzes a system, system component or process and designs it under realistic constraints to meet the required requirements; he/she implements modern design methods in this direction.			X								X
			Selects and uses the modern techniques and tools necessary for engineering applications.											X
			Works effectively on individual and multidisciplinary teams.				X							
		Communication and Social Competence	Uses computer and communication technology at least in the European Computer Use License Advanced level required by his / her field.					X						X
			Communicates verbally and in writing, using at least one foreign language at least at European Language Portfolio B1 General Level.							X				
			Communicates using technical drawing.											X
			Gains access to information and research resources for this purpose, using databases and other sources of information.									X		X
			Is aware of the universal and social effects of engineering solutions and practices; ,s aware of the issues of entrepreneurship and innovation, and has knowledge of contemporary problems.								X			
		Field Specific Competence	Has a professional and ethical responsibility.						X					
			Has awareness on project management, workplace practices, employee health, environmental and occupational safety; have an awareness of the legal consequences of their engineering applications.						X		X			
			Demonstrates awareness of the universal and social implications of engineering solutions and practices; is aware of the issues of entrepreneurship and innovation and has knowledge of the problems of the times.								X		X	

Program Qualifications	
1	An ability to apply knowledge of mathematics, science, and engineering
2	An ability to design and conduct experiments, as well as to analyze and interpret data
3	An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
4	An ability to function on multidisciplinary teams
5	An ability to identify, formulate, and solve engineering problems
6	An understanding of professional and ethical responsibility
7	An ability to communicate effectively in English and in Turkish
8	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
9	A recognition of the need for, and an ability to engage in life-long learning
10	A knowledge of contemporary issues
11	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

All Courses in the Program		Program Qualifications										
Code	**Course Name**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
MAK 104	STATICS	5	2	4	1	5	2	3	2	2	2	4
MAK 112	COMPUTER AIDED TECHNICAL DRAWING	4	1	3	1	2	2	3	1	2	1	5
MAK 201	THERMODYNAMICS	5	1	3	1	5	2	3	4	2	3	3
MAK 203	DYNAMICS	5	2	4	1	5	2	3	2	2	2	4
MAK 206	STRENGHT OF MATERIALS	5	2	4	1	5	2	5	2	2	2	4
MAK 217	MATERIAL SCIENCE	5	2	4	1	5	2	3	2	2	2	4
MAK 217L	MATERIAL SCIENCE LABORATORY	4	4	2	4	3	3	4	1	2	2	4
MAK 218	MANUFACTURING PROCESSES	5	2	4	1	5	2	3	2	2	2	4
MAK 218L	MANUFACTURING PROCESSES LABORATORY	4	4	2	4	3	3	4	1	2	2	4
MAK 302	HEAT TRANSFER	5	2	4	1	5	2	5	2	2	3	4
MAK 302L	HEAT TRANSFER LABORATORY	4	4	2	4	3	3	5	1	2	2	4
MAK 305	SYSTEM DYNAMICS AND CONTROL	5	2	4	1	5	2	5	2	2	2	4
MAK 305L	SYSTEM DYNAMICS AND CONTROL LABORATORY	4	4	2	4	3	3	5	1	2	2	4
MAK 307	DESIGN AND MANUFACTURING	5	2	4	1	5	2	5	2	2	2	4
MAK 310	NUMERICAL METHODS	5	2	4	1	5	2	5	2	2	2	5
MAK 311	FLUID MECHANICS	5	2	4	1	5	2	3	2	2	2	4
MAK 311L	FLUID MECHANICS LABORATORY	4	4	2	4	3	3	4	1	2	2	4
MAK 312	MACHINE ELEMENTS	5	2	4	1	5	2	3	2	2	2	4
MAK 316	THEORY OF MACHINES	5	2	4	1	5	2	3	2	2	2	4
MAK 316L	THEORY OF MACHINES LABORATORY	4	4	2	4	3	3	4	1	2	2	4
MAK 408	OPTIMIZATION METHODS AND APPLICATIONS	5	2	4	1	5	2	5	2	2	2	5
MAK 410	FINITE ELEMENT METHOD	5	2	4	1	5	2	5	2	2	2	5
MAK 444	AUTOMOTIVE ENGINEERING	5	2	4	1	5	2	5	2	2	2	5
MAK 449	MODELING AND DYNAMICS OF ENGINEERING SYSTEMS	5	2	4	1	5	2	5	2	2	2	5
MAK 451	MECHATRONIC INSTRUMENTATION	4	4	5	5	3	3	5	2	3	2	5
MAK 460	INTRODUCTION TO BOIMECHANICS	5	2	4	1	5	2	5	2	2	3	5
MAK 471	INTERNAL COMBUSTION ENGINES	5	2	4	1	5	2	5	2	2	3	1
MAK 480	THERMAL SYSTEM DESIGN	5	2	4	1	5	2	5	2	2	3	1
MAK 490	GAS TURBINES	5	2	4	1	5	2	5	2	2	2	5
MAK 498	SENIOR DESIGN PROJECT	5	3	2	5	5	4	5	3	3	3	5
ELE 297	INTRODUCTION TO ELECTRICAL AND ELECTRONICS ENGINEERING	5	2	3	2	3	2	3	2	2	2	3