

Course Description Form	
Course Code and Name	MM 108 INTRODUCTION TO MECHANICAL ENGINEERING
Course Semester	2
Catalog Content	The Mechanical Engineering Profession, Problem Solving and Communication Skills, Professional and Ethical Responsibilities, Forces in Structures and Machines, Materials and Stresses, Thermal and Energy Systems, Mechanical Design
Textbook	Makine Mühendisliğine Giriş, Çeviri Ali Osman Ayhan, Palme Yayınevi, 2014. An Introduction to Mechanical Engineering, Jonathan Wickert, 2nd Ed., Thomson
Supplementary Textbooks	1. Foundations of Engineering (McGrawHill Education), MT Holtzapple ve WD Reece. 2. Engineering Science (ELSEVIER, Fifth Edition), W. Bolton.
Credit	2
Prerequisites of the Course (Attendance Requirements)	-
Type of the Course	Compulsory
Instruction Language	English
Course Objectives	To learn the general knowledge about the Mechanical engineering.
Course Learning Outcomes	<ol style="list-style-type: none"> 1. Learning the basic purposes of the basic lectures in the mechanical engineering education. 2. Learning the general knowledge about the Mechanical engineering. 3. Understanding the mechanical engineering duties and authority. 4. Understanding the importance of Mechanical Engineering and ensure their place in society. 5. Students benefit from the experiences of graduates.
Instruction Methods	Lecture, Question & Answer, Practice
Weekly Schedule	<ol style="list-style-type: none"> 1. The Mechanical Engineering Profession 2. The Mechanical Engineering Profession 3. Problem Solving and Communication Skills, Professional and Ethical Responsibilities 4. Problem Solving and Communication Skills, Professional and Ethical Responsibilities 5. Forces in Structures and Machines 6. Forces in Structures and Machines 7. Materials and Stresses 8. Midterm I , Materials and Stresses 9. Fluid Mechanics 10. Thermal and Energy Systems 11. Thermal and Energy Systems 12. Motion and Power Transmission 13. Mechanical Design 14. Mechanical Design 15. Final Exam
Teaching and Learning Methods <i>(These are examples. Please fill which activities you use in the course)</i>	Weekly theoretical course hours:2 Weekly applied course hours:0 Reading:1 Internet browsing, library work:2 Preparation of Midterm and Midterm Exam:3 Final Exam and Preparation for Final Exam:3

Assessment Criteria		Quantity	Percentage						
	Midterm Exams	1	40						
	Assignment	4	20						
	Exercises	0	0						
	Projects	0	0						
	Practice	0	0						
	Quiz	0	0						
	Contribution of In-term Studies to Overall Grade	-	60						
	Contribution of Final Examination to Overall Grade	1	40						
Workload	Activity	Total Number of Weeks	Duration (weekly hour)	Total Period Work Load					
	Theoretical Study Hours of Course Per Week	14	2	28					
	Practising Hours of Course Per Week			0					
	Reading	8	1	8					
	Searching in Internet and Library	4	2	8					
	Designing and Applying Materials			0					
	Preparing Reports			0					
	Preparing Presentation			0					
	Presentation			0					
	Mid-Term and Studying for Mid-Term	1	3	3					
	Final and Studying for Final	1	3	3					
	Other (should be emphasized)			0					
	Total Workload			50					
	Total Workload / 25			2					
	Course Credit (ECTS)			2					
Contribution Level Between Course Learning Outcomes and Program Outcomes	NO	PROGRAM LEARNING OUTCOMES			1	2	3	4	5
	1	Adequate knowledge of subjects specific to mathematics, natural sciences and related engineering disciplines; ability to use theoretical and applied knowledge related to these areas in complex engineering problems							x
	2	Ability to identify, define, formulate, and solve complex engineering problems; ability to select and apply appropriate analysis and modeling methods to this end.				x			
	3	Ability to design a complex system, process, device or product under realistic constraints and conditions to meet specific requirements; ability to apply modern design methods for this purpose							

	4	Ability to develop, select and use modern techniques and tools required for the analysis and solution of complex problems encountered in engineering practice; ability to use information technologies effectively		x				
	5	Ability to design and conduct experiments, collect data, analyze and interpret results to investigate complex engineering problems or discipline-specific research topics						
	6	Ability to work effectively in disciplinary and multi-disciplinary teams; ability to work individually						
	7	Ability to communicate effectively in Turkish, both orally and in writing; knowledge of at least one foreign language; the ability to write effective reports and understand written reports, to prepare design and production reports, to deliver effective presentations, to give and receive clear and understandable instructions					x	
	8	Awareness of the necessity of lifelong learning; the ability to access information, to follow developments in science and technology, and to renew oneself constantly				x		
	9	Acting in accordance with ethical principles, professional and ethical responsibility; information about standards used in engineering applications						x
	10	Information about business life practices such as project management, risk management and change management; awareness of entrepreneurship, innovation; information about sustainable development				x		
	11	Knowledge about the universal and social effects of engineering applications on health, environment and safety and the problems of the age reflected in the engineering field; awareness of the legal consequences of engineering solutions	x					
The Course's Lecturer(s) and Contact Informations		1. runal@gazi.edu.tr , Prof. Rahmi ÜNAL 2. ozsunar@gazi.edu.tr , Prof.Abuzer ÖZSUNAR, 3. bilgili@gazi.edu.tr , Asst.Prof.Dr. Muhittin BİLGİLİ						