Course Description Form	
Course Code and Name	MM 423 Graduation Design Project I
Course Semester	Fall
Catalog Content	Literature survey, project management, risk management, change management, entrepreneurship, innovativeness, sustainable development, professional and ethical responsibility.
Textbook	Berdanier, Catherine Grace Patrick, and Joshua Bela Lenart. So, You Have to Write a Literature Review: A Guided Workbook for Engineers. First edition, John Wiley & Sons, Inc, 2020.
Supplementary Textbooks	Nicholas, John M., et al. *Project Management for Engineering, Business, and Technology*. 4th ed, Routledge, 2012.
Credit	6
Prerequisites of the Course (Attendance Requirements)	
Type of the Course	Compulsory
Instruction Language	Turkish
Course Objectives	This course aims to teach students how to conduct literature survey, find innovative conceptual solutions to complex engineering problems, project planning and project management.
Course Learning Outcomes	1. Ability to access the necessary information and search for resources, use databases and other sources of information to this end. 2. Determines the subject of study and has awareness of project management, risk management and change management. 3. Becomes aware of entrepreneurship, innovativeness and sustainable development. 4. Becomes aware of the universal and social effects of engineering applications on health, environment and safety. 5. Becomes aware of professional and ethical responsibility, legal consequences of engineering solutions.
Instruction Methods	The mode of delivery of this course is in-class.
Weekly Schedule	1. Project selection. 2. Project selection. 3. Building the theoretical foundations. 4. Building the theoretical foundations. 5. Seminar: Project management, risk management and change management. 6. Seminar: Applications of the project management, risk management and change management in the business life. 7. Literature survey. 8. Seminar: Entrepreneurship, innovativeness and sustainable development. 9. Seminar: Applications of the entrepreneurship, innovativeness and sustainable development in the business life. 10. Literature survey. 11. Literature survey. 12. Seminar: Universal and social aspects of the engineering applications on the health, environment and safety. 13. Seminar: Professional and ethical responsibility, the legal consequences of engineering solutions. 14. Report writing

	15. Report Writing
Teaching and Learning Methods *(These are examples. Please fill which activities you use in the course)*	Reading Activities Internet browsing, library work Designing and implementing materials Report preparing

Assessment Criteria

	Numbers	**Total Weighting (%)**
Midterm Exams		
Assignment		
Application		
Projects		
Practice		
Quiz		
Percent of In-term Studies (%)		
Percentage of Final Exam to Total Score (%)		100
Attendance		

Workload

Activity	**Total Number of Weeks**	**Duration (weekly hour)**	**Total Period Work Load**
Weekly Theoretical Course Hours			
Weekly Tutorial Hours	14	2	28
Reading Tasks	14	2	28
Studies	12	3	36
Material Design and Implementation	10	1	10
Report Preparing	5	4	20
Preparing a Presentation	6	3	18
Presentations			
Midterm Exam and Preperation for Midterm Exam			
Final Exam and Preperation for Final Exam	1	10	10
Other (should be emphasized)			
Total Workload			150
Total Workload / 25			6
Course Credit (ECTS)			6

Contribution Level Between Course Learning Outcomes and Program Outcomes

No	Program 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.					
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.					
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.					
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					x

		management, risk management and change management; awareness of entrepreneurship, innovation; information about sustainable development.					
	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		Academic Staff					