

**School of Engineering and Natural Sciences / Industrial Engineering (English)**

**2023 - 2024 Academic Year**

**ENGINEERING PROJECT I**

**Syllabus**

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
ENGINEERING PROJECT I	IND4210788	Spring Semester	1+2	2	6
<b>Prerequisites Courses</b>	MATEMATİK II; FİZİK I; FİZİK I LAB; FİZİK II; FİZİK II LAB; AKADEMİK İLETİŞİM BECERİLERİ I; AKADEMİK İLETİŞİM BECERİLERİ II				
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	English				
<b>Course Level</b>	First Cycle (Bachelor's Degree)				
<b>Course Type</b>	Required				
<b>Course Coordinator</b>	Assoc.Prof. Melis Almula KARADAYI				
<b>Name of Lecturer(s)</b>	Assoc.Prof. Melis Almula KARADAYI				
<b>Assistant(s)</b>					
<b>Aim</b>	The theoretical programming they acquire throughout their studies on engineering projects is the functioning of a system that works in practice. Students learn to divide and solve problems using the knowledge they have gained within the program and a real-life problem analysis they have learned. Working in small groups, electrical energy designs, builds and presents an ambitious electrical design project.				
<b>Course Content</b>	This course contains; Choose a topic for the capstone project.,Literature research and designing of the project.,Literature search and designing of the project - 2.,To form a work-timeline plan.,Risk analysis for the project.,Development of plan B for assessed risks.,Determination to success criteria of the project.,Semester reporting and presentation.,Doing experiment based on prepared project plan.,Doing experiment based on prepared project plan - 2.,Obtaining preliminary results.,Evaluation of preliminary data and repost the result.,Preparation of the end of the year project presentation.,Preparation for the end of the year project presentation..				
<b>Course Learning Outcomes</b>		<b>Teaching Methods</b>	<b>Assessment Methods</b>		
Lists all requirements for a given project.		10, 11, 14, 2, 3, 5, 9	D, F		
Apply the steps required for project design and realization.		10, 11, 14, 2, 3, 5, 9	D, F		
Consider ethical values when realizing a project.		10, 11, 2, 3, 5, 9	D, F		
Develop oral and written communication skills.		10, 11, 14, 2, 3, 5, 9	D, F		
Use the philosophy of lifelong learning.		10, 11, 2, 3, 5, 9	D, F		
Show perseverance during difficult moment of project execution.		10, 11, 14, 2, 3, 5, 9	D, F		
Use modern tools and techniques for a given project.		10, 11, 14, 2, 3, 5, 9	D, F		
<b>Teaching Methods</b>	10: Discussion Method, 11: Demonstration Method, 14: Self Study Method, 2: Project Based Learning Model, 3: Problem Baded Learning Model, 5: Cooperative Learning, 9: Lecture Method				
<b>Assessment Methods</b>	D: Oral Exam, F: Project Task				
<b>Lecture Schedule</b>					
<b>Sequenc e</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Choose a topic for the capstone project.	Meeting with academic faculty or industry.			
2	Literature research and designing of the project.	Literature research.			
3	Literature search and designing of the project - 2.	Searching the literature.			
4	To form a work-timeline plan.	Identification of the main parts of the project and required time for realization.			
5	Risk analysis for the project.	Detailed literature search.			
6	Development of plan B for assessed risks.	Detailed literature search.			
7	Determination to success criteria of the project.	Detailed literature search.			
8	Semester reporting and presentation.	Technical writing and presentation skills to be acquired.			
9	Doing experiment based on prepared project plan.	Experimental studies.			
10	Doing experiment based on prepared project plan - 2.	Experimental studies.			
11	Obtaining preliminary results.	Learning the required skills.			
12	Evaluation of preliminary data and repost the result.	Learning the required program to prepare the report.			
13	Preparation of the end of the year project presentation.	Going through the provided templates and determine the requirements for good presentation.			
14	Preparation for the end of the year project presentation.	Presentation rehearsal as a team.			
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		30			
General Exam		70			

<b>Resources</b>