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

2024 - 2025 Academic Year

ENGINEERING PROJECT II

Syllabus

Course Description						
Name		**Code**	**Semester**	**T+A Hour**	**Credit**	**ECTS**
ENGINEERING PROJECT II		IND4110789	Fall Semester	1+2	2	6
Prerequisites Courses	MÜHENDİSLİK PROJESİ I					
Recommended Elective Courses						
Language of Instruction	English					
Course Level	First Cycle (Bachelor's Degree)					
Course Type	Required					
Course Coordinator	Assoc.Prof. Melis Almula KARADAYI					
Name of Lecturer(s)	Assoc.Prof. Melis Almula KARADAYI					
Assistant(s)	Res. Asst. Kübra Çakır					
Aim	The engineering graduation project aims for engineering students to apply the theoretical knowledge they have acquired throughout their education to a system that works in practice. Students learn to analyze, model and solve a real-life problem using the knowledge and skills they have gained within the program. Working in small groups, engineering students design, build, and present an ambitious engineering design project.					
Course Content	This course contains; To continue the project, which was planned in the Engineering Project I phase and whose pioneering results were obtained, as planned. ,Experimentally test the hypothesis of the project.,Experimentally test the hypothesis of the project - 2.,To obtain proect individual components.,Integration of the component and testing.,Integration of the component and testing - 2.,Organizing and reviewing data for midterm presentation.,Preparation of Midterm presentation.,Maintain experiments to meet schedule within planned timeline.,Maintain experiments to meet schedule within planned timeline - 2.,Controlling access to success metrics and correcting deficiencies.,Obtain the first prototype.,Semester reporting and preparation of presentation.,Prototype testing and practicing the presentation as team..					

Course Learning Outcomes	**Teaching Methods**	**Assessment Methods**
The ability to grasp the need for test plans and the ability to test different functions of a developed model.	10, 14, 2, 5	D, F
By using different engineering topics, the ability to build up a model.	14, 2, 5	D, F
The ability to present the work orally and textual.	14, 5	D, F
The ability to convert theoretical knowledge into practical engineering designs.	10, 2, 5	D, F
Understanding of project schedule and ability to work under strict deadlines	10, 14	D, F

Teaching Methods	10: Discussion Method, 14: Self Study Method, 2: Project Based Learning Model, 5: Cooperative Learning
Assessment Methods	D: Oral Exam, F: Project Task

Lecture Schedule

Sequence	**Topics**	**Preliminary Preparation**
1	To continue the project, which was planned in the Engineering Project I phase and whose pioneering results were obtained, as planned.	Experimental studies.
2	Experimentally test the hypothesis of the project.	Doing experiment.
3	Experimentally test the hypothesis of the project - 2.	Doing experiment.
4	To obtain proect individual components.	Comparison of different components.
5	Integration of the component and testing.	Combining different project components.
6	Integration of the component and testing - 2.	Combining different project components.
7	Organizing and reviewing data for midterm presentation.	Evaluate the data.
8	Preparation of Midterm presentation.	Organizing the data.
9	Maintain experiments to meet schedule within planned timeline.	Doing experiment.
10	Maintain experiments to meet schedule within planned timeline - 2.	Doing experiment.
11	Controlling access to success metrics and correcting deficiencies.	Doing experiment.
12	Obtain the first prototype.	Doing experiment.
13	Semester reporting and preparation of presentation.	Technical writing and presentation skills to be acquired.
14	Prototype testing and practicing the presentation as team.	Doing rehearsal.

Evaluation Methods	**Weight(%)**
Midterm Exam	30
General Exam	70

Resources