

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

2023 - 2024 Academic Year

ENGINEERING PROJECT II

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
ENGINEERING PROJECT II	COE4210766	Spring 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	Prof.Dr. Mehmet Kemal ÖZDEMİR				
Name of Lecturer(s)	Prof.Dr. Mehmet Kemal ÖZDEMİR				
Assistant(s)	Teaching Assistants				
Aim	The Capstone Project gives Engineering students the opportunity to put their education into a practical working system that demonstrates how theory is applied. Engineering students, working in small teams, design, build, and present a challenging engineering design project. Challenging projects are proposed and supported by IMU faculty research groups or by industry. Projects typically involve design and implementation of both hardware and software systems. However, for Computer Engineering software projects are preferred. The projects span a variety of topics in the field of engineering, including for example computer vision, artificial intelligence, algorithms design, machine learning, and autonomous systems.				
Course Content	This course contains; Obtaining the main components of the project, be it hardware components or software platforms. ,First release of the software component.,First system prototype,Second prototype,Integration of all the components and testing.,Semester reporting and presentation..				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
1. By using different engineering topics, the ability to build a prototype.			10, 11, 16, 2, 21, 5, 9	F	
2. Teorik bilgileri pratik mühendislik tasarımlarında kullanabilme yetisinin gelişmesi.			10, 11, 16, 2, 21, 5, 9	F	
3. The ability to grasp the need for test plans and the ability to test different functions of a developed prototype.			10, 11, 16, 2, 21, 5, 9	F	
4. The ability to present the work orally, visually, and textual.			10, 11, 16, 2, 21, 5, 9	F	
5. Understanding of project schedule and ability to work under strict deadlines.			10, 11, 16, 2, 21, 5, 9	F	
Teaching Methods	10: Discussion Method, 11: Demonstration Method, 16: Question - Answer Technique, 2: Project Based Learning Model, 21: Simulation Technique, 5: Cooperative Learning, 9: Lecture Method				
Assessment Methods	F: Project Task				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Obtaining the main components of the project, be it hardware components or software platforms.	Comparison of different elements.			
2	First release of the software component.	Test plan for the software testing.			
3	First system prototype	System testing document.			
4	Second prototype	Improvements document.			
5	Integration of all the components and testing.	Merging different parts of the project.			
6	Semester reporting and presentation.	Technical writing and presentation skills to be acquired.			
Evaluation Methods		Weight(%)			
Midterm Exam		30			
General Exam		70			

Resources
M. Markel, Writing in the Technical Fields, IEEE Press, 1994.Code of Ethics of Engineers, Accreditation Board for Engineering & Technology (ABET), 1997.