



**ÇANKAYA UNIVERSITY**  
**Department of Industrial Engineering**  
**Spring, 2024**  
**IE 446**  
**Project Engineering Management**  
**(3+0+3 credits, 4 ECTS)**

**Course Description:**

The role of projects in the organization is getting more important as they become the major tool for reaching strategic goals. This module provides an integrative view of project management. Topics include project selection, project organization, budgeting and cost estimation, progress and performance measurement and evaluation, and project auditing. Project planning and control techniques, such as CPM and PERT, are also covered. After project management issues, project planning and control issues such as general review of CPM and PERT models to cover cases with certainty and uncertainty of activity durations; project crashing and PERT/Cost analysis; GANTT charts and resource balancing decisions; control, revision, and verification of projects; computer applications are discussed.

**Course Description:**

This course aims to introduce the Engineering students to project planning and control. Engineers are responsible for safe, timely, and cost-effective delivery of a broad range of projects in various industries. In this course, the analytical tools and techniques required to manage projects effectively and efficiently will be emphasized. In this module, the project planning and control tools used in managing and delivering projects will be explained in depth. Upon the conclusion of this course, students will have gained practical knowledge of:

- Project management principles
- Project scheduling: models and solution algorithms
- Project monitoring and control tools
- Project risk analysis tools
- Project management software

	<b>Instructor</b>	<b>Teaching Assistant</b>
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<b>Office:</b>	L118	L305
<b>Office Hours:</b>	Tuesday 14:20-16:10 Thursday 15:20-17:10	TBA

**Grading**

Homework:	20 % (3 or 4 HWs)
Project:	20 %
Midterm:	25 %
Final	35 %
<b>Total:</b>	<b>100 %</b>

Tentative weekly course schedule:	
Week	Topic(s)
1	Project & Project Management Definitions
2	Project Networks
3	Critical Path Method (CPM)
4	Review of Basic Probability Concepts
5	Program Evaluation and Review Technique (PERT)
6	Time-cost trade-offs
7	Resource Constrained Project Scheduling: single resource
8	Resource Constrained Project Scheduling: multiple resources
9	Project Monitoring and Control
10	Project Management Software
11	Decision Making Under Uncertainty
12	Project Risk Analysis
13	Project Presentations
14	Project Presentations

Textbook(s)				
Author(s)	Title	Publisher	Publication Year	ISBN
Erik W. Larson and Clifford F. Gray	Project Management The Managerial Process	McGraw Hill Education	2018	978-1-259-25387-4

Reference Books				
Author(s)	Title	Publisher	Publication Year	ISBN
J.R. Meredith, S.J. Mantel Jr.	Project Management, A managerial Approach	John Wiley & Sons, Inc.	2009	978-0-470-22621-6
A.Shtub, J.F. Bard, S. Globerson	Project Management	Prentice Hall	2005	0-13-041331-3

### Policy on Home works and Exams:

Cheating on homework and exams will have serious consequences. Therefore, all work submitted should reflect your honest effort. In this course, homework assignments and project will play a crucial role in ensuring students from understanding of the material that they have learned in lectures. In doing homework, assignments, and project, it is suggested that the students should work in teams of **three**. (in each group there must be at least one MECE and one IE student)

All examinations will be based on lectures, tutorials, and labs. To pass these exams students will need to have studied the material well in advance in order to understand the concepts, procedures, and techniques. To discourage last-minute cramming, the instructor and the assistants will not answer any questions from students on the day of an examination.

### Attendance:

Attendance to lectures are up to the student's will.

**Make-Ups:** There will be make-up exams for midterm and for final for students with a valid excuse.

**NA Grade:** The followings may lead to NA grade:

1. Not participating in Project work. This includes not finding a group, having a group report without your name on it, not making oral presentation, etc.
2. Not taking midterm and final exams (or their make ups).

**Web page:** Every student is responsible to check the page of the course, [webonline.cankaya.edu.tr](http://webonline.cankaya.edu.tr), regularly (at least twice a week). All the related announcements, lecture notes, grades, attendance and other information will be uploaded.

**Honesty Policy:** All students enrolled to this course are expected to act honestly and ethically and should declare her/his understanding and belief in the Honor Code stated below. Therefore, any form of dishonesty will not be tolerated. If you conduct any dishonest act during any course activity (i.e., cheating on exam, using any extra material that you are not allowed to use during an exam, copying materials off of someone else's homework or assignment, using solution keys from previous years, copying materials from published and electronic sources without paraphrasing and/or citing appropriately), you will get a credit of zero on that particular exam or assignment. Necessary disciplinary action(s), as dictated by the rules of Çankaya University, will also be taken.

**Honor Code:** Every student enrolled to this course should declare her/his understanding and belief in the Honor Code stated below by 1) writing the Honor Code on a paper with her/his hand writing, 2) sign it (using blue-ink pen), 3) scan it / take a picture of it (in color), 4) upload it to the course's website.

*I hereby declare that in all the activities related to this course I'm enrolled: I will neither give nor receive any aid during the exam; I will not submit any assignment, project, report, or similar work which includes any part other than my or our group's work without citation and it will totally be my / our work.*

*[Burada kayıt olduğum bu ders ile ilgili tüm aktivitelerde: sınav sırasında hiç kimseden hiçbir şekilde yardım almayacağımı ve hiçbir kimseye hiçbir şekilde yardım etmeyeceğimi; sunacağım ödevlerin, projelerin, raporların, vb. işlerin, benim veya grubumun çalışması dışında referans vermeden hiçbir kısım içermeyeceğini ve tamamen kendi eserim / eserimiz olduğunu beyan ederim.]*

**NOTE THAT EVERYTHING ON THIS SYLLABUS IS SUBJECT TO CHANGE. STUDENTS WILL BE NOTED ABOUT ANY CHANGE.**