CE 232 Construction Management

2024-25 Spring Semester

Instructor:

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Time and Location:

Tuesday	08.45 - 09.30	B211
Thursday	08.45 - 10.30	B211

Course description:

The Construction Management course covers how various construction specialties relate to one another and which activities have priority in each situation. It reviews a wide range of subjects to understand the dynamics of the large and complex construction industry. The course acknowledges that the modern successful construction manager needs to be a competent technologist possessing complementary skills and knowledge in management as well as understanding and using latest technological programming and optimization tools. Armed with awareness of such expertise, students will be better prepared for decision-making and undertaking executive responsibilities in the construction industry.

Prerequisite(s): **None**

References:

Halpin, D.W., Senior B.A. ***Construction Management***. John Wiley & Sons, Inc., 4th ed., 2011.

Jackson, B.J., ***Construction Management -JumpStart***. Wiley Publishing, 2nd. ed., 2010.

Hinze, J.W. ***Construction Planning and Scheduling***. Prentice Hall. 3rd ed. 2008.

Gültekin, A.T. ***Proje Yönetimi –Yapım Öncesi Süreci***. Palme Yayıncılık, 2007.

Harris, F., McCaffer, R. ***Modern Construction Management***. Blackwell, 6th ed. 2006.

Course Website:

Students are required to enroll in **CE232** on **TEAMS**. All announcements and course material will be posted on TEAMS.

Grading:

The final grades will be computed according to the following scheme:

Assessment	Weight	Date
Midterm I	25%	**15.04.2025** (Tentatively)
Midterm II	25%	**27.05.2025** (Tentatively)
Assignments	10%	weekly
Final Exam	40%	**17.06.2025** (Tentatively)

Tentative Course Outline

Week	Subject Covered
1	Overall context, Course Review, History and Basic Concepts of PM how a PM course gets its theory and feed-back both from optimization topics of 'Industrial Engineering' and soft skills for leading in 'Management' degree, review of the Syllabus and basic requirements
2	Project and Management definitions, life cycle of a project, phases of projects Conceptual terminology and definitions of PM (management vs. administration, daily routine jobs vs. project, leader vs. manager, construction vs. manufacturing)
3	Management Process, PDCA cycle, Human Resources Management, Leadership, Management and Administration, Project Players and Project Stages: life cycle of a construction Project,
4	Project Delivery Systems and Contract Management, Communication Management - Conflict Management on site: strategies, styles and negotiation techniques
5	Project Planning: principles of planning, project charter, BOSCAR (background, objectives, scope, constraints, assumptions, risks) and Work Breakdown Structure (inverted tree, percentage style, task definitions)
6	Project Scheduling: Gantt Charts and Critical Path Method, forward pass, backward pass, total float, calculating the duration of a project
7	MIDTERM EXAM 1
8	Project Scheduling: Gantt Charts and Critical Path Method, forward pass, backward pass, total float, calculating the duration of a project
9	Program Evaluation and Review Technique: Solving the network, Precedence diagramming, Uncertainty of Project completion time
10	Computer tools and monitoring project performance, controlling projects via MS Project
11	Controlling projects via MS Project
12	Building Information Modeling, Economic Analysis: introductory presentation, guest lecturer assignment
13	MIDTERM EXAM 2
14	Construction safety and ethics, guest lecturer: guest lecturer
15	FINAL EXAM