

AMERICAN UNIVERSITY OF BEIRUT
FACULTY OF ENGINEERING AND ARCHITECTURE
CIVE 580 & ENMG 502 CONSTRUCTION MANAGEMENT

PROFESSOR M. ASEM ABDUL-MALAK

COURSE DESCRIPTION

This course seeks to impart in students a sound understanding of the fundamental principles of construction management as applied to development of building and infrastructure projects. The course includes: project organization, pre-construction activities, bidding, staffing for construction, macro- and micro-level planning and scheduling, and quality control.

COURSE OBJECTIVES

The aim of the course is:

1. To introduce students to the general field of construction engineering and project management.
2. To expose students to the techniques of organizing and planning for the design and execution of construction projects.
3. To emphasize the need to exercise effective control on a project's budget, schedule and quality requirements.

COURSE OUTLINE

PART I. CONSTRUCTION INDUSTRY AND PRACTICE

Construction Management in the Engineering and Construction Industry
Construction Project Characteristics and Life Cycle
Development and Organization of Projects

PART II. CONSTRUCTION MANAGEMENT IN PRACTICE

Pre-construction Studies, Activities, and Investigations
Bidding and Contract Award
Construction Supervision and Logistics

PART III. METHODS IN CONSTRUCTION MANAGEMENT

Concepts of Project Planning and Control
Construction Scheduling and Cash Flow Analysis
Materials Procurement and Management
Design and Analysis of Construction Operations

COURSE LEARNING OUTCOMES

The learning outcomes to be sought include:

Outcome 1: Students will demonstrate an ability to understand the reasons for adopting varying project organization structures and to appreciate their roles and co-existence with others as part of the project organization.

Outcome 2: Students will demonstrate an ability to understand essential functions and steps that need to be exercised prior to the launching of construction.

Outcome 3: Students will demonstrate an ability to interact and communicate effectively with peers and multidisciplinary teams.

Outcome 4: Students will demonstrate an ability to understand the bidding process and to carry out systematic analyses of bid prices.

Outcome 5: Students will demonstrate an ability to plan and schedule for the construction of projects' activities.

Outcome 6: Students will demonstrate an ability to analyze and design the system of applied resources for the proper and efficient execution of construction operations.

TEXTBOOK

Construction Management by D. W. Halpin and R. W. Woodhead, Latest Edition, John Wiley & Sons.

OFFICE HOURS

T&TH 11:00-1:00 in Bechtel Engineering Building, Room 521 (or by appointment, mamalak@aub.edu.lb)

GRADE STRUCTURE

■ Attendance	5%
■ Participation and Forums	5%
■ In-class work	10%
■ Assignments	15%
■ A scheduled midterm exam	25%
■ A final exam	40%

<u>Topic</u>	<u>Readings</u>	<u>Class Work/ Assignments</u>
TOPIC 1	Chapter 1	To be announced
TOPIC 2		To be announced
TOPIC 3	Chapter 5	To be announced
TOPIC 4		To be announced
TOPIC 5	Chapter 4	To be announced
TOPIC 6	Chapter s 3 and 16	To be announced
TOPIC 7	Chapters 6 and 14	To be announced
TOPIC 8	Chapters 6, 7, and 12	To be announced
TOPIC 9	Chapter 15	To be announced
TOPIC 10	Chapters 11 and 16	To be announced

EXAMS

MIDTERM EXAM	(TOPICS 1-7)	To be announced
FINAL EXAM	(TOPICS 1-10)	To be announced

Students are hereby instructed to review all relevant University rules and regulations including those related to attendance, cheating, plagiarism, misconduct, and academic integrity, among many others. It shall be expected that strict enforcement of these rules and regulations will be exercised.
