



London TDM

# Civil and Construction Engineering Training Courses

**Course Venue:** United Arab Emirates - Dubai

**Course Date:** From 25 January 2026 To 29 January 2026

**Course Place:** Downtown Dubai

**Course Fees:** 5,000 USD

## Introduction

High-rise building construction presents unique challenges and requires specialized techniques and planning. This course aims to equip professionals with the skills and knowledge needed to navigate the complexities of constructing tall structures, covering everything from initial planning to the completion of construction. Through expert instruction and hands-on learning, participants will develop an in-depth understanding of the latest techniques and innovations in high-rise construction.

## Objectives

- To understand the fundamental concepts of high-rise building construction.
- To explore various structural systems used in tall buildings.
- To learn about advanced construction technologies and materials.
- To examine safety and regulatory considerations in high-rise construction.
- To analyze case studies of successful high-rise projects.

## Course Outlines

### Day 1: Introduction to High-Rise Construction

- Definition and history of high-rise buildings
- Overview of the construction industry and trends
- Key stakeholders and their roles
- Initial planning and design considerations
- Building regulations and standards

### Day 2: Structural Systems and Design

- Types of structural systems in high-rise buildings
- Load-bearing and load-transfer mechanisms
- Aerodynamic design for wind resistance
- Seismic design and earthquake resistance
- Case studies of innovative structural designs

### Day 3: Advanced Construction Technologies

- Pre-cast and pre-fabricated construction methods
- Use of cranes, lifts, and hoists in construction
- Innovative materials for sustainable building
- Building Information Modelling (BIM) in high-rise projects
- Integration of smart building technologies

### Day 4: Safety, Risk Management, and Compliance

- Safety protocols and emergency preparedness
- Risk management strategies in construction
- Fire safety and prevention techniques
- Legal aspects and compliance with building codes
- Health and safety case studies

## **Day 5: Project Management and Case Studies**

- Time management and scheduling techniques
- Cost estimation and budgeting strategies
- Collaboration and communication among stakeholders
- Case studies of landmark high-rise projects
- Future trends and the evolution of high-rise construction