



London TDM

# Civil and Construction Engineering Training Courses

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

**Course Date:** From 26 April 2026 To 30 April 2026

**Course Place:** Downtown Dubai

**Course Fees:** 5,000 USD

## Introduction

The "Fundamentals of Civil Engineering" course provides a comprehensive foundation for understanding the core principles and practices essential to the field of civil engineering. This 5-day professional course is designed to equip participants with the fundamental knowledge and skills necessary to excel in civil engineering projects and pursuits.

## Objectives

- Understand the basic concepts and importance of civil engineering in infrastructure development.
- Gain insights into the various branches of civil engineering and their applications.
- Learn the principles involved in designing and constructing civil engineering projects.
- Develop problem-solving skills specific to civil engineering challenges.
- Foster a professional approach to civil engineering ethics and sustainable practices.

## Course Outlines

### Day 1: Introduction to Civil Engineering

- Overview of civil engineering and its role in society.
- History and evolution of civil engineering.
- Basic principles and terminology.
- Key disciplines within civil engineering.
- Current trends and future developments.

### Day 2: Structural Engineering Basics

- Fundamentals of structural analysis and design.
- Types of structures and their components.
- Load assessment and material selection.
- Introduction to computer-aided design (CAD) in structural engineering.
- Case studies of notable structures.

### Day 3: Geotechnical Engineering Principles

- Understanding soil mechanics and foundation engineering.
- Types of foundations and their applications.
- Site investigation and soil testing techniques.
- Slope stability and earth retaining structures.
- Geotechnical challenges and solutions.

### Day 4: Water Resources and Environmental Engineering

- Hydrology and water resource management.
- Design and operation of water supply systems.
- Wastewater treatment and management.
- Environmental impact assessments.
- Strategies for sustainable civil engineering.

## **Day 5: Construction Management and Ethics**

- Introduction to project management in civil engineering.
- Construction planning, scheduling, and budgeting.
- Quality control and risk management.
- Construction law and contracts.
- Professional ethics and responsibilities in civil engineering.