



London TDM

Civil and Construction Engineering Training Courses

Course Venue: United Kingdom - London

Course Date: From 19 October 2025 To 23 October 2025

Course Place: London Paddington

Course Fees: 7,500 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.