Concrete Structural Design for Industrial Projects Course

2027 □□□□□ 4 – □□□□ 31
London (UK)



Concrete Structural Design for Industrial Projects Course

Ref: 2022988_24-12-31 Location: London (UK) Fees: 5400 GBP

Course Description

This intensive 1-week course provides a comprehensive understanding of concrete structural design for industrial projects. Participants will learn advanced analysis techniques, design principles, and practical applications specific to industrial structures. The course covers various aspects of concrete design, from material properties to complex structural systems, with a focus on industrial applications.

Learning Objectives

- Understand the principles of concrete structural design for industrial applications
- Apply advanced analysis techniques for complex industrial structures
- Design reinforced concrete elements for industrial projects
- Evaluate and optimize concrete structures for durability and performance
- Implement industry best practices and standards in concrete design

Course Modules

Day 1: Fundamentals of Industrial Concrete Design

- Introduction to industrial concrete structures
- Material properties and behavior
- Load analysis and structural systems
- Design codes and standards for industrial projects

Day 2: Analysis and Design of Reinforced Concrete Elements

- Flexural design of beams and slabs
- Shear design considerations
- Column design and slenderness effects
- Serviceability requirements for industrial structures

Day 3: Specialized Industrial Concrete Structures

- Design of foundations for heavy machinery
- Concrete tanks and containment structures
- Industrial floor systems and pavements
- Precast and prestressed concrete applications



Day 4: Advanced Topics in Industrial Concrete Design

- Seismic design considerations
- Blast-resistant concrete structures
- Fatigue and dynamic loading effects
- Durability and corrosion protection strategies

Day 5: Practical Applications and Case Studies

- Design optimization techniques
- Construction methods and quality control
- Rehabilitation and strengthening of existing structures
- Case studies of industrial concrete projects

Practical Wins for Participants

- Ability to design efficient and cost-effective concrete structures for industrial projects
- Skills to analyze and solve complex structural engineering problems
- Knowledge to implement industry best practices and standards in concrete design
- Expertise to optimize concrete structures for durability and long-term performance

