informatech



CONSTRUCTION MANAGEMENT | COURSE

Construction Materials and Building Systems

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Course content

Why Attend

Course Introduction

This Construction Materials and Building Systems training course offers a comprehensive understanding of construction materials and building systems, focusing on both traditional and modern technologies.

Participants will gain insights into selecting appropriate materials, understanding their properties, and integrating efficient building systems for sustainable construction projects.

This course is designed to equip professionals with practical knowledge and skills essential for the construction industry.

This training course will feature:

• Understanding material properties and selection

• Sustainable construction techniques

• Integrating building systems for efficiency

• Latest trends in construction technology

• Practical case studies and real-world applications

Course Methodology

This training course will utilize a variety of proven adult learning techniques to ensure maximum understanding, comprehension, and retention of the information presented.

This includes lectures, interactive discussions, group exercises, and hands-on case studies to enhance practical application.

Who should Attend?

This training course is ideal for a broad range of professionals, from beginners to advanced levels, who are involved in construction, architecture, and building management. It is particularly beneficial for:

• Civil engineers and architects

• Project managers in construction



Course content

Course Methodology

- Building inspectors and surveyors
- Sustainability consultants
- Construction site supervisors

Course Objectives

By the end of this training course, participants will be able to:

- Understand material properties
- Analyse building systems integration
- Apply sustainable construction methods
- Design efficient structures
- Evaluate new construction technologies

Course outline

Day One: Introduction to Construction Materials

- Overview of construction materials
- Types and classifications
- Properties of concrete and steel
- Factors influencing material selection
- Material sustainability and life cycle
- Case studies on material usage

Day Two: Building Systems and Integration

- Understanding building systems



Course content

Course outline

- HVAC systems and energy efficiency
- Electrical and plumbing systems
- Smart building technologies
- Integration of systems for sustainability
- Practical examples of system design

Day Three: Sustainable Construction Practices

- Principles of sustainable construction
- Green building materials
- Waste management in construction
- Energy-efficient building designs
- LEED certification and standards
- Case studies in green construction

Day Four: Structural Design and Analysis

- Basics of structural analysis
- Load-bearing structures
- Design of reinforced concrete
- Foundations and ground stability
- Construction safety and compliance
- Hands-on design exercises

Day Five: Latest Trends and Innovations

- Emerging construction technologies



Course content

Course outline

- Use of AI and automation in construction
- Prefabrication and modular construction
- Digital twins and BIM (Building Information Modelling)
- Future of construction materials
- Review and final project presentation



Seminar dates

Available seminar dates

Live dates and pricing for Construction Materials and Building Systems generated from the course details page.

Date	Location	Format	Fee
7 - 11 December 2026	Barcelona - Spain	Classroom	**€3,080.-**
11 - 15 January 2027	Barcelona - Spain	Classroom	**€3,080.-**
8 - 12 February 2027	London - U.K	Classroom	**€3,360.-**
8 - 12 March 2027	Munich - Germany	Classroom	**€3,400.-**
12 - 16 April 2027	Barcelona - Spain	Classroom	**€3,080.-**
10 - 14 May 2027	Paris - France	Classroom	**€3,600.-**
14 - 18 June 2027	Frankfurt - Germany	Classroom	**€2,600.-**
12 - 16 July 2027	Barcelona - Spain	Classroom	**€3,080.-**
9 - 13 August 2027	Barcelona - Spain	Classroom	**€3,080.-**
13 - 17 September 2027	London - U.K	Classroom	**€3,360.-**
11 - 15 October 2027	Munich - Germany	Classroom	**€3,400.-**
8 - 12 November 2027	Barcelona - Spain	Classroom	**€3,080.-**
13 - 17 December 2027	Paris - France	Classroom	**€3,600.-**

Live online option	Online delivery is available at €1,850.-.