

# Engineering Materials For Buildings and Bridges Course

## Venue Information

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**Venue:** London UK

**Place:**

**Start Date:** 2026-12-15

**End Date:** 2026-12-19

## Course Details

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**Net Fee:** £4750.00

**Duration:** 1 Week

**Category ID:** CACETC

**Course Code:** CACETC-27

## Syllabus

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### Course Syllabus

#### Course Description

The goal of this course is to provide participants with an advanced understanding of the properties of traditional and emerging materials used in buildings and bridges. Upon completion of the course.

#### Course Objective

**Each participant should be able to:**

- Recognize and understand the engineering properties of materials used in the construction of bridges and buildings
- Select the appropriate material to achieve particular design goals
- Understand the advantages, disadvantages and limitations of such materials

## Course Outline

### Day One

- High-performance concrete
- Self-consolidating concrete
- Fibre-reinforced concrete

### Day Two

- Lightweight concrete
- Polymer modified concrete
- Sprayed concrete (shotcrete)

### Day Three

- Epoxy-coated steel reinforcement
- Galvanized steel reinforcement
- Emerging corrosion resistant steel reinforcement
- Fibre-plastic reinforcement (FRP)
- Hybrid reinforcement new technology

### Day Four

- Specifications and standards for engineering materials
- Laboratory and field testing
- Smart materials and smart structures
- Novel materials and emerging applications

### Day Five:

- Examples and case studies