

Eurocode 3 in detail, including tutorials (2-day)

Course outline

Introduction

Eurocode 3 is the current design standard for structural steelwork. This course will introduce the code and explain how to apply it for simple elements in building structures. Practical tutorials allow delegates to understand how to design elements using Eurocode 3.

Aims & Objectives:

On completion of this course delegates will have a knowledge of the principles of Eurocode 3 and be able to apply them to elements in a building structure. It will also introduce delegates to appropriate design aids.

After this course delegates will:

- Have an appreciation of the content of Eurocode 3 for building structures
- Know how to design for
 - o Flexure
 - Lateral torsional buckling
 - o Shear
 - o Axial loading
 - o Combined axial and bending resistance
 - o Deflection
 - o Fatigue
 - o Tension
 - o Forces in connections
 - o Torsion
 - o Frame stability
 - o Cranes

Course Outline:

- Introduction to Eurocode 3
 - o Relationship to other Eurocodes
 - o Specification of steelwork
 - o Material partial factors
- Frame stability with design exercise
- Section classification with design exercise
- Ultimate limit state
 - o Members in bending with design exercise
 - o Members in shear with design exercise
 - o Member in compression with design exercise
 - o Members in combined bending and compression with design exercise
 - o Torsion
- Serviceability limit state
- Cranes
- Connections design
- Review of design aids and guidance

Further information

This course is intended for Structural Engineers. Some knowledge of steelwork design and Eurocodes 0 and 1 would be useful but not essential. A calculator and pencil are essential, but other required materials will be provided.

Course Duration:

2 day (12 hours) CPD