

# Revit Structure Essentials

**Duration:**

3 Days

**Who should attend?:**

Those who want to get to grips with the primary features of Revit Structure and wish to learn the fundamentals of Building Information Modelling.

**Prerequisites:**

It is recommended that you have a working knowledge of Microsoft supporting systems. Additionally, it is assumed that the student has past experience working with AutoCAD.

**Course Description:**

This courseware covers the basics of Revit® Structure, from schematic design through construction documentation. Students are introduced to the concepts of Building Information Modelling and the tools for parametric building design and documentation.

**Objectives:**

The primary objective of this courseware is to teach students the concepts of Building Information Modelling and introduce the tools for parametric building design and documentation using Revit Structure. After completing this course, students will be able to:

- Describe the benefits of Building Information Modelling
- Use the fundamental features of Revit Structure
- Use the parametric 3D design tools to design projects
- Create detailing and draughting views
- Create construction documentation
- Use the presentation tools for presenting models

## Course Outline:

### Viewing the Structural Model

- About Views
- View Properties
- Guidelines for Working with Views
- About Controlling Object Visibility
- View Templates
- Modifying Line Styles
- Using Filters
- Guidelines for Controlling Object Visibility
- About Elevation and Section Views
- Controlling Visibility of Elevation and Section Tags
- About 3D Views
- Navigating Through a 3D View
- About Cameras
- Creating and Modifying Camera Views
- Changing Material Properties
- Guidelines for Working with 3D Views

### Starting a New Project

- About Projects
- Creating Project Templates
- Guidelines for Creating Project Template Files
- About Levels
- Adding and Modifying Levels
- Guidelines for Adding and Modifying Levels
- About Grids
- Methods of Creating and Modifying Grid Lines
- Guidelines for Creating and Modifying Grids

### Creating Structural Columns and Walls

- About Structural Columns
- Loading Structural Columns
- Creating Structural Column Types
- Structural Column Tools and Options
- Creating Openings in Structural Columns
- Guidelines for Working with Structural Columns
- About Structural Walls
- Structural Wall Type Parameters

- Structural Wall Instance Parameters
- Creating Wall Openings
- Guidelines for Working with Structural Walls

### Creating Frames

- About Floor Framing
- About Beams
- Beam Properties
- Adding Openings in Beams
- Guidelines for Adding and Modifying Beams
- About Beams and Beam Systems
- Beam System Properties
- Methods of Creating Sloped Beams
- Guidelines for Working with Beams and Beam Systems
- About Structural Steel Frames
- Setting Steel Frame Symbols in a Plan View
- Editing Braces
- Guidelines for Working with Structural Steel Frames
- About Concrete Beams
- Options to Edit Concrete Beam Joins
- Vertical Justification of Beams
- Guidelines for Working with Concrete Beams

### Creating Floors and Roofs

- About Floor Elements
- Process of Adding a Floor Element
- Creating Sloped Floors
- Creating Shaft Openings in Floors
- Guidelines for Adding Floors
- About Roofs
- Guidelines for Creating Roofs

### Creating Foundations

- About Foundations
- Creating Stepped Walls and Foundations
- Guidelines for Adding Foundations

### Stairs and Ramps

- About Stairs and Railings
- Creating Stairs
- Guidelines for Creating Stairs
- About Ramps
- Guidelines for Creating Ramps

## Creating Plan Annotations and Schedules

- About Temporary Dimensions
- About Permanent Dimensions
- About Spot Dimension Symbols
- Guidelines for Adding Dimensions
- About Text
- About Tags
- Process of Adding Tags
- Setting Text Placement Parameters
- Guidelines for Working with Text and Tags
- About Legends
- Guidelines for Creating Legends
- About Schedules
- Working with Schedules
- Guidelines for Working

with Schedules

## Creating Detailing

- About Detail Views
- Guidelines for Saving and Reusing a Detail View
- Adding 3D Reinforcement
- Adding Detail Components
- Guidelines for Adding Concrete Reinforcement
- About Drafting Views
- Guidelines for Reusing Drafting Views
- Options for Importing and Editing CAD Files
- Guidelines for Working with CAD Details

## Creating Construction Documentation

- About Sheets and Titleblocks
- About Revision Tracking
- Creating Revision Clouds
- Guidelines for Working with Sheets and Titleblocks
- Print Settings
- Print Setup Settings
- Guidelines for Printing Sheets
- Settings for Exporting Content
- Guidelines for Exporting Content to CAD Formats