

# Revit Structure Advanced

## Course Description

This course covers a wide range of advanced topics in Revit® Structure, continuing to build on the concepts introduced in the *Revit Structure Essentials* course. Students learn about detailing and detail components, rebar, families, analytical analysis, and collaborating on a design with other professionals.

This course offers both imperial and metric hands-on exercises representing real-world design scenarios.

<b>Suggested Course Duration:</b>	2 days
<b>Pages:</b>	288
<b>Trial CD:</b>	No
<b>Onscreen Exercises Included?</b>	Yes

## Objectives

The primary objective of this course is to teach students the powerful tools and advanced techniques for creating complex designs, and about detailing and detail components, rebar, families, analytical analysis, and collaborating on a design with other professionals or team members using Revit Structure.

## Who Should Attend

This course is designed for experienced users of Revit Structure.

## Prerequisites

Students should have completed the *Revit Structure Essentials* course or have equivalent experience using Revit Structure. Structural engineering or architectural design experience is highly recommended. It is also recommended that the student have a working knowledge of Microsoft® Windows® XP or Microsoft® Windows® 2000.

# Course Outline

## Day 1

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### **Working with Detail Components and Managing Details**

- Creating a 2D Detail Component
- Creating and Editing Detail Component Groups
- Managing a Library of Typical Details

### **Working with Rebar**

- 2D Detail Components Versus 3D Rebars
- Creating Rebars in Beams and Columns
- Using Area and Path Reinforcement in Slabs and Walls

### **Working with Families**

- Creating a Slab on Metal Deck
- Creating a Precast Hollow Core Slab
- Creating a Tapered Moment Frame
- Creating a 3D Steel Gusset Plate
- Using Steel Stiffeners
- Creating a Stepped Footing

### **Creating Trusses**

- Modifying an Open Web Joist
- Creating a New Truss from the Library
- Attaching a New Truss to a Roof

## Day 2

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### **Exploring Analytical Tools**

- Working with the Analytical Model
- Adjusting the Analytical Model
- Checking for Analytical Consistencies
- Adding and Modifying Boundary Conditions
- Analyzing and Updating the Model with Robot
- Analyzing and Updating the Model with RISA
- Analyzing and Updating the Model with ADAPT

### **Working with Clients and Consultants Using DWG Files**

- Importing and Exporting to AutoCAD
- Importing and Exporting to AutoCAD Architecture

### **Working with Clients and Consultants Using Revit Architecture**

- Linking Revit Models
- Coordinating and Monitoring Changes
- Checking and Fixing Interference Conditions

## **Multi-User Worksharing**

- Creating and Using Workset
- Managing Worksets

## **Sharing Your Design Using DWF**

- Importing and Exporting Using DWF
- Working with DWF Markup Files

## **Importing and Exporting Data with IFC Format**

- Importing and Exporting Using IFC Format

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**Note:** The suggested course duration is a guideline. Course topics and duration may be modified by the instructor based upon the knowledge and skill level of the course participants.

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