

## Revit Structure 2009 Advanced

### Courseware Description

Students learn a wide range of advanced topics in Revit® Structure 2009, building on the concepts introduced in the *Revit Structure 2009 Essentials* course. Hands-on exercises teach students about detailing and detail components, rebar, families, analytical analysis, as well as how to collaborate on a design with other professionals.

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

<b>Suggested Course Duration:</b>	2 days
<b>Pages:</b>	~300
<b>Trial CD:</b>	No
<b>Onscreen Exercises Included?</b>	Yes

### Objectives

The primary objective of this courseware is to teach students the powerful tools and advanced techniques for creating complex designs with Revit Structure 2009.

After completing this course, students will be able to:

- Work with detailing and detail components.
- Describe rebar and families.
- Perform analytical analysis.
- Collaborate on a design with other professionals or team members using Revit Structure.

### Who Should Attend

This courseware is designed for experienced users of Revit Structure 2009.

### Prerequisites

Before using this courseware, students should have completed the *Revit Structure 2009 Essentials* course or have equivalent experience using Revit Structure. In addition, students should have working knowledge of the following:

- Structural engineering or architectural design.
- 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**

- Adding 3D Rebar to Beams and Columns
- Adding Reinforcement to Walls and Slabs

### **Working with Families**

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

### **Creating Trusses**

- Modifying an Open Web Joist
- Creating a new Truss from the Library

## 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 Millennium
- Analyzing and Updating the Model with RISA
- Analyzing and Updating the Model with ADAPT
- Analyzing and Updating the Model with ETABS

### **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

## **Multuser Worksharing**

- Creating and Using Worksets
- Managing Worksets

## **Sharing your Design using DWF**

- Importing and Publishing Using DWF Format
- Working with DWF Markup Files

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

- Importing and Exporting with 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.