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# Revit Structure

**3 Days**  
**24 AIA/CES**



## Course Description

In this hands-on course, students go through real-world structural design scenarios to learn about the fundamental features of Revit Structure using the 3D parametric design tools to create and analyze a project and finish with construction documentation.

The doors open at 8:45 a.m. Class begins at 9:00 a.m. and ends at 5:00 p.m. with two fifteen minutes breaks and a one hour lunch. We have bagels and coffee served in the morning upon arrival. A book and a certificate of completion are included in this fee.

## Objectives

The primary objective of this course is to teach students the concepts of Building Information Modeling (BIM) and introduce the tools for parametric design, analysis, and documentation using Revit Structure.

After completing this course, students will be able to:

- Describe the benefits of Building Information Modeling (BIM).
- Use the fundamental features of Revit Structure.
- Use the parametric 3D design tools for creating and analyzing projects.
- Use the automated tools for documenting projects.

## Who Should Attend

This course is designed to teach new users the essential elements of Revit Structure.

## Prerequisites

Before attending this course, students should have a working knowledge of the following:

- Structural engineering or architectural design.
- Microsoft Windows.

## **Course Outline**

### **Building Information Modeling**

- Building Information Modeling

### **Revit Structure Basics**

- Exploring the User Interface
- Working with Structural Elements and Families

### **Viewing the Structural Model**

- Working with Views
- Controlling Object Visibility
- Working with Elevation and Section Views
- Working with 3D Views

### **Starting a New Project**

- Setting Up a Project
- Adding and Modifying Levels
- Adding and Modifying Grids

### **Creating Structural Columns and Walls**

- Working with Structural Columns
- Working with Structural Walls

### **Creating Frames**

- Adding Floor Framing
- Working with Beams and Beam Systems
- Working with Structural Steel Frames
- Working with Structural Concrete Beams

### **Creating Slabs and Roofs**

- Adding Slabs
- Creating Roofs

### **Creating Foundations**

- Adding Foundations

### **Stairs and Ramps**

- Creating Stairs
- Creating Ramps

### **Creating Plan Annotations and Schedules**

- Adding Tags
- Adding Dimensions, Symbols, and Text
- Creating Legends
- Working with Schedules

### **Creating Sections and Details**

- Adding Structural Wall Sections and Reinforcement
- Adding Detail Lines and Detail Groups
- Importing Typical DWG Details
- Adding Concrete Detail Components
- Creating and Modifying Steel Details

### **Creating Construction Documentation**

- Creating Sheets and Title Blocks
- Printing Sheets
- Exporting Content to CAD Formats

**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