

# AUTODESK REVIT STRUCTURE FUNDAMENTALS



CSG Training Centre | Authorized Autodesk Training Centre | Certipoint Authorized Testing Centre

## FOR WHOM

Structural Drafters, Structural Engineers

## PRE-REQUISITION

Working knowledge of Windows Operating Systems.  
Working knowledge of Structural design and terminology (recommended).

## DURATION | VERSION

3 DAY(S), Version 2022

## COURSE OBJECTIVES

To take full advantage of Building Information Modeling, the Autodesk® Revit®: Fundamentals for Structure Training has been designed to teach the concepts and principles of creating 3D parametric models of structural buildings from engineering design through construction documentation.

This Training is intended to introduce learners to the user interface and the basic building components of the software that makes it a powerful and flexible structural modeling tool. The goal is to familiarize learners with the tools required to create, modify, analyse, and document the parametric model. The examples and practices are designed to take the learners through the basics of a full structural project, from linking in an architectural model to construction documents.

We also provide real live project situations solving tips by Trainers who possesses actual site experiences and live project datasets for you to work-on.

## COURSE TOPICS

### Introduction to BIM and Autodesk Revit

1. BIM and Autodesk Revit
2. Overview of the Interface
3. Starting Projects
4. Viewing Commands

### Basic Sketching and Modify Tools

1. Using General Sketching Tools
2. Editing Elements
3. Working with Basic Modify Tools
4. Working with Additional Modify Tools

## COURSE TOPICS

### Starting Structural Projects

1. Linking and Importing CAD Files
2. Linking in Revit Models
3. Setting Up Levels
4. Copy and Monitoring Elements
5. Coordinating Linked Models

### Working with Views

1. Modifying the View Display
2. Duplicating Views
3. Adding Callout Views
4. Creating Elevations and Sections

### Grids and Structural Columns

1. Adding Grid Lines
2. Loading Components
3. Placing Structural Columns

### Foundations

1. Modeling Walls
2. Adding Wall Footings
3. Creating Piers and Pilasters
4. Adding Isolated Footings

### Structural Framing

1. Modeling Structural Framing
2. Modifying Structural Framing
3. Adding Trusses

### Adding Structural Slabs

1. Modeling Structural Slabs
2. Creating Shaft Openings

### Structural Reinforcement

1. Structural Reinforcement
2. Adding Rebar
3. Modifying Rebar
4. Reinforcing Walls, Floors, and Slabs

### Structural Analysis

1. Preparing Projects for Structural Analysis
2. Viewing Analytical Models
3. Adjusting Analytical Models
4. Placing Loads

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## COURSE TOPICS

### Creating Construction Documents

1. Setting Up Sheets
2. Placing and Modifying Views on Sheets
3. Printing Sheets

### Annotating Construction Documents

1. Working with Dimensions
2. Working with Text
3. Adding Tags
4. Adding Detail Lines and Symbols
5. Creating Legends

### Creating Details

1. Setting Up Detail Views
2. Adding Detail Components
3. Annotating Details

### Scheduling

1. Structural Schedules
2. Graphical Column Schedules
3. Working with Schedule

## COURSE TOPICS

### Introduction to Worksharing

1. Introduction to Worksharing

### Additional Tools

1. Selection Sets
2. Placing Slanted Structural Columns
3. Editing Wall Joins
4. Creating Slab Types
5. Creating Rebar Types
6. Editing Plan and Section Profiles
7. Working on Guide Grids on Sheets
8. Revision Tracking
9. Annotating Dependent Views
10. Importing and Exporting Schedules
11. Creating Building Component Schedules
12. Creating a Repeating Detail

### Project - Concrete Structure

1. Start a Structural Project
2. Create Foundation Elements
3. Frame a Concrete Structure