
COURSE DESCRIPTION

To take full advantage of Building Information Modeling, this Autodesk® Revit® Structure Essentials training course has been designed to teach the concepts and principles from building design through construction documentation using the Autodesk Revit Structure software. This training course is intended to introduce students to the software's user interface and the basic building components that make the Autodesk Revit Structure software a powerful and flexible structural modeling tool. Our goal is to familiarize you with the tools necessary to create, document, and print your parametric model. Examples and practices are designed to reflect as many different building types as possible.

This course is designed for new users of Revit Structure.

TRAINING OBJECTIVES

After completing this course, students will be able to:

- Introduction to the Autodesk Revit Structure software
- Setting up Levels and Grids
- Working with Views
- Editing Elements
- Modifying Commands
- Starting a Structural Project using architectural underlays
- Adding Columns and Walls
- Adding Foundations
- Structural Reinforcement
- Beams and Framing Systems
- Bracing Frames
- Floors, Shafts, and Stairs
- Annotation, Detailing, and Scheduling
- Sheets and Printing

COURSE OUTLINE

DAY 1

Introduction to Revit Structure

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

- Overview of the Program
- Working with Projects
- Understanding the Interface
- Viewing Tools

Setting up Levels and Grids

- Creating & Using Levels
- Placing Grid Lines

Working with Views

- Creating Elevations
- Creating Sections
- Creating Callouts

Editing Elements

- Selecting Elements for Editing
- Work with Temporary Dimension

Modify Commands

- Move & Copy
- Rotate
- Array
- Mirror
- Align
- Split
- Offset
- Trim & Extend

Creating an Architectural Underlay

- Working with Architectural Underlays
- Importing & Linking CAD Files
- Linking in Projects Created in Autodesk Revit Architecture
- Copying & Monitoring Elements

DAY 2

Adding Columns and Walls

- Structural Columns
- Slanted Structural Columns
- Drawing & Modifying Walls

Adding Foundations

- Strip Footings
- Step & Spread Footings
- Piers & Pilasters
- Structural Slabs

Structural Reinforcement

- Reinforcement Overview
- Setting the Cover Depth
- Adding Rebar
- Area Reinforcement
- Path Reinforcement

Beams and Framing Systems

- Beams & Beam Systems Overview
- Modifying Beams
- Labeling Framing

Brace Frames

- Framing Elevations
- Adding Bracing

DAY 3

Floors, Shafts, and Stairs

- Creating Floor Systems
- Creating Shaft Opening
- Framing Shaft Openings
- Understanding Stairs & Ramps

Annotation

- Working with Text
- Dimensioning

Detailing

- Setting Up Detail Views
- Creating Details
- Annotating Details

- Patterning

Scheduling

- Column Schedules
- Modifying Schedules
- Other Schedules
- Legend Views

Sheets and Revisions

- Creating Sheets
- Placing & Modifying Views on Sheets
- Adding Revisions
- Printing Sheets