



Revit Structure Essentials enables students to create full 3D structural models as well as the corresponding analytical models that can be exported into third party analysis software. Students will learn how to create and modify structural components, export and import models into structural analysis software, create construction details, and prepare documents for printing.

Prerequisite: Basic knowledge of Windows Operating System, drafting techniques, and computer keyboard skills.



Course Outline

Building Information Modeling

Building Information Modeling

- About Building Information Modeling, About Bidirectional Associativity

Revit Structure Basics

Exploring the User Interface

- The User Interface, The Design Bar Tabs

Working with Revit Elements & Families

- About Structural Elements, About Families

Viewing the Structural Model

Exploring Views

- Controlling Object Visibility, Using Filters, Creating Elevation and Section Views, Working with 3D Views

Starting a New Project

Setting up a Project

- Project Settings, Creating Templates, Adding & Modifying Levels, Adding & Modifying Grids

Creating Structural Columns & Walls

Working with Structural Columns

- Loading and Creating Structural Columns, Creating Openings in Columns

Working with Structural Walls

- Structural Wall Properties, Continuous Footings and Pilasters, Process of Modeling Structural Walls, Creating Stepped Walls & Stepped Footings

Creating Frames, Slabs, Roofs & Foundations

Creating Frames

- Adding Floor Framing, Working with Beam Systems, Working with Structural Steel Frames

Creating Slabs

- Process of Adding a Floor System Family, Creating Sloped Slabs & Shaft Openings in Slabs

Creating Roofs

- Process of Sketching Roofs

Creating Foundations

- Guidelines for Adding Foundations

Additional Building Components

- Creating Stairs, Creating Ramps, Creating Elevator Pits

Creating Plan Annotations & Schedules

Adding Tags

- About Structural Tags, Revision Tag Visibility Options, Guidelines for Adding Tags

Adding Dimensions, Symbols, and Text

- About Dimensions, Spot Dimension Symbols, Setting Text Placement Parameters

Creating Legends

- Creating an Annotation Symbol Legend, Creating Model Element Legends

Working with Schedules

- About Schedules, Creating Schedules

Creating Sections & Details

Working with Sections and Details

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

Construction Documentation

Creating Documentation

- Creating Sheets and Titleblocks, Printing

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