

Autodesk Revit Family Creation for Structure

Course Length: 1 day

Building Information Modelling (BIM) is an approach to the entire building life cycle. Autodesk Revit for Architecture is a powerful BIM program that supports the ability to coordinate, update, and share design data with team members throughout the design construction and management phases of a building's life. Families are the backbone of Autodesk Revit. They are the elements you add as you model a building and its services, as well as the tools you use as you are annotating views.

The objective of the Autodesk Revit Family Creation for Structure training course is to enable users who have worked with the software to expand their knowledge in creating custom system, in-place, and component families.

This Autodesk Revit training course contains practices that are specific to structure discipline.

Topics Covered

- Create custom wall, and floor types.
- Set up a component family file with a parametric framework.
- Create family geometry.
- Create family types.
- Modify the visibility of components and incorporate additional family items such as controls, and add additional parameters.
- Create specific families, including in-place families, profiles, annotations, and parameters.
- This training course also contains structural discipline-specific practices for families, including: gusset plates, built-up columns, tapered concrete column, truss family, and tapered moment frame.

Prerequisites

Students should be comfortable with the fundamentals of the Autodesk Revit software, as found in the Autodesk Revit Fundamentals training courses. Knowledge of basic techniques is assumed, such as creating standard element, copying, and moving elements, and creating and working with views, etc. Information on Collaboration Tools, Conceptual Design, and Site and Structural Design are covered in additional training courses.

Training Guide Contents

Chapter 1: Custom System Families

- Creating Wall, and Floor Types
- Vertically Compound Walls
- Stacked and Embedded Walls

Chapter 2: Component Family Concepts

- Creating Component Families
- Creating the Parametric Framework
- Creating Family Elements
- Creating Family Types

Chapter 3: Advanced Family Techniques

- Additional Tools for Families
- Visibility Display Settings

Chapter 4: Additional Family Types

- Creating 2D Families
- Creating Line-based Families
- Creating In-Place Families
- Working with Shared Parameters

Chapter 5: Creating Structural Specific Families

- Parametric Gusset Plate
- In-Place Column Stiffeners
- In-Place Slab Depression
- Built-Up Column
- Tapered Concrete Column
- Truss Family
- Precast Hollow Core Slab
- Tapered Moment Frame

Appendix B: Autodesk Revit Certification Exam Objectives