Autodesk Mastering Revit Structure

Training details

DESCRIPTION

The Revit Structure building information model combines a physical representation of the building fully associated with an analytical representation. This common, computable building model is used for structural design, drawing production, and coordination – and drives third-party structural analysis applications.

OBJECTIVES:

This course covers the basics of Autodesk Revit® Structure Users are introduced to the concepts of Building Information Modelling and the tools for parametric design, analysis, and documentation They learn the fundamental features of Autodesk Revit Structure, learn to use the 3D parametric design tools for creating and analyzing a project, and finish with construction documentation and design visualization.

TRAINING STRUCTURE:

Autodesk Revit (Structure) contains (2) courses:

- Autodesk Revit (Structure) Professional — 14 class x 2.5 hours = 35 hours
- Autodesk Revit (Structure) Expert — 10 class x 2.5 hours = 25 hours

COURSE TEXTBOOKS AND OTHER READING MATERIALS

We recommend the following resources:

- Mastering Autodesk Revit Structure
- Autodesk Revit Structure Essentials

Web Resources:

- http://www.autodesk.com/products/autodesk-revit-family/overview
- http://seek.autodesk.com
- http://help.autodesk.com/view/RVT/2014/ENU

PREREQUISITES:

- Basic knowledge and skills about using computers.
- Structure background is recommended

COURSE GRADING:

Attendance 40% Assignments (workshop + 2 projects)
60% To pass the course and receive both Autodesk certificate & CAD MASTERS certificate you should:

- Attend at least 80% of course hours.
- Score more than 70% as a total score.

AUTODESK MASTERING REVIT STRUCTURE – COURSE OUTLINE

This course including the following:

Class 1:

- Introduction
- What is BIM technology?
- What Is Revit?
- Understanding the interface

Class 2:

- What is template
- Starting a project
- Datum (grids & levels)
- Creating columns

Class 3:

- Floors
- Edit Boundaries.
- Floor openings. 2.3. Shaft openings
- Drop Panels
- Copying Floors
- Floors Slope Direction

Class 4:

- How to copy columns
- Rename Levels & Corresponding Views
- Selection & Modifying tools (Selection Filters)
- Creating Basic Walls
- Openings in Walls
- Wall Edit Profile

Class 5:

- Wall Attach to slabs
- Controlling the 3D Views: (3D Plans (Orient to Views))
- Foundations

Class 6:

- Concrete & Steel Beams
- Beams systems and Bracings

Class 7:

- Stairs

Class 8:

- Annotations (Dimensions)
- Visibility and Graphics (V.V) + Hide & Isolate Tools
- Sections & Elevations
- Call outs

Class 9:

- Reinforcements using extensions

Class 10:

- Scheduling and quantities:
  - Columns
  - Beams
  - Foundation

Class 11:

- Creating Sheets & Print out
- Details ---- Tags & Texts
- Modify Tagging Families
- Work Shop

Class 12:

- Architecture underlay: CAD Linking
- Workshop

Class 13:

- Introduction to modeling in place
- Using loads and boundary conditions

Class 14:

- Final workshop
- Revision

AUTODESK REVIT (STRUCTURE) EXPERT – COURSE OUTLINE

This course including the following:

Collaboration:

- Linking Models
- Work-sharing: Enable work sets
- Copy Monitor

Coordination:

- Coordinate Bet. Disciplines
- Interference Check Between Models
- Synchronization Workflow

Advanced modeling (model in place):

- Creating Irregular Shapes for Structure elements
- How to Pick a Reference Plane.
    - Extrusion
    - Blend
    - Revolve
    - Sweep
- Create Void Forms.

Family creator and editor:

- Editing an Existing Family
    - Edit tag Family
    - Create a new Tag Family.
    - Adding Labels.
- Family Template (Stand Alone Families, Hosted Families)
- Family category and Parameters.
- Reference Planes (Identify data, types)
- Project Family Parameters & Materials)
- Shared Parameters.
- Family Specs (Identify data, types & Materials)
- Completing Families
- Work Shop

Advanced view properties:

- View range b. Plan Region
- View Template (Modify & Create New View Template)
- Scope Box
- Duplicate Views

Project setting:

- Line styles
- Line weights c. Object Styles
- Custom Fill Patterns

Final workshop and Questions