Design Integration Using Autodesk Revit

Target Audience

Architects, structural engineers, MEP designers, and BIM professionals involved in multidisciplinary design integration.

Course Objective

To enable professionals to integrate architectural, structural, and MEP designs seamlessly using Autodesk Revit.

Course Outcome

- Coordinate and integrate multiple disciplines within a Revit model.
- Manage clashes and resolve design conflicts using collaboration tools.
- Optimize workflows for efficient model sharing and data exchange.
- Generate comprehensive documentation and reports for project execution.

Course Outline: The course comprises **56-hours** of theory and labs and is divided into **17** different chapters. Each chapter will be followed by hands-on lab exercises to reinforce learning and gauge understanding of the topics covered.

Chapter 1. Getting Started with Autodesk Revit

What is Revit?
Overview of the Revit User Interface
Open, Save and Close a Revit Project
Creating a New Project

Introduction to Stairs and Railings
Stair by Component
Introduction to Railings
Ramps and Sloped Floors
Elevators
Adding Utilitarian Stairs and Railings

Chapter 8. Structural System

Introduction to Revit Structure
Creating Views and Loading Content
Grids, Columns and Beams
Floors and Bar Joist Layout
Foundations and Footings
Structural Annotation and Tags

Chapter 9. ANNOTATION

Text
Dimensions
Tagging
Shared Parameters
Keynoting

Chapter 10. Elevations, Sections and Details

Exterior Elevations
Interior Elevations
Building Sections
Wall Sections
Details

Chapter 11. INTERIOR DESIGN

Toilet Room Layouts
Cabinets
Furniture
Column Furring and Interior Curtain Wall

Chapter 12. SCHEDULES

Room and Door Tags
Generate a Door Schedule
Generate a Room Finish Schedule

Chapter 13. Mechanical Systems

Introduction to Revit's Mechanical & Plumbing Tools
Creating Views and Loading Content
Placing Air Terminals and the Air Handling Unit (AHU)
VAV Boxes, MEP Systems & Ductwork
Plumbing Layout

Chapter 14. Electrical System

Introduction to Revit MEP – Electrical
Creating Views and Loading Content
Panelboard, Power Devices and MEP Systems
Light Fixture and Light Switch Layout
Systems Layout

Chapter 15. SITE and Renderings

Site Tools
Creating an Exterior Rendering
Rendering an Isometric in Section
Creating an Interior Rendering
Adding People to the Rendering

Chapter 16. CONSTRUCTION DOCUMENTS SET

Setting Up a Sheet
Sheet Index
Printing a Set of Drawings

Chapter 17. Introduction to Phasing and Worksharing

Introduction to Phasing
Introduction to Worksharing
Phasing Exercise

KOENIG
step forward

AUTODESK
Authorized Training Center

Worksharing Exercise