



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







Using Zoom and Pan to View Your Drawings Using Revit's Help System Introduction to Autodesk Drive

Chapter 2. Quick Start: Small Office

Walls, Grids and Dimensions

Doors

Windows

Roof

Annotation, Room Tags & Schedules

Printing

Chapter 3. Revit Basics: Overview of Linework and Modify Tools

Lines and Shapes

Snaps

Edit Tools

Annotations

Chapter 4. Revit Basics: Drawing 2D Architectural Objects

Sketching Rectilinear Objects Sketching Objects with Curves

Chapter 5. FLOOR PLANS

Project Setup

Exterior Walls

Interior Walls

Doors, Windows and Curtain Walls

Chapter 6. Roof, Floors & Ceilings

Introduction to the Roof Tool Law Office Roof Floor Systems Ceiling Systems

Chapter 7. VERTICAL CIRCULATION







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





AUTODESK Authorized Training Center

Worksharing Exercise

