Residential Design Using Autodesk Revit

Target Audience

This course is ideal for architects, interior designers, and design professionals, as well as students and enthusiasts, who want to learn how to create detailed and accurate residential designs using Autodesk Revit. It caters to both beginners and those with basic Revit knowledge.

Course Objective

The objective of this course is to provide participants with the skills to design, model, and document residential buildings in Autodesk Revit, focusing on efficiency, precision, and realistic visualization.

Course Outcome

- Gain a comprehensive understanding of Autodesk Revit's tools and features for residential design.
- Develop complete residential building models, including floor plans, elevations, and 3D visualizations.
- Apply materials, lighting, and rendering techniques to create realistic interior and exterior designs.
- Produce professional-quality documentation, including schedules and construction-ready drawings.

Course Outline: The course comprises **40-hours** of theory and labs and is divided into **16** 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. Lake Cabin: FLOOR PLAN (The Basics)

Walls
Doors
Windows
Roof
Annotation and Dimensions
Printing

Chapter 3. Overview of Linework and Modify Tools

Lines and Shapes
Snaps
Edit Tools
Annotations

Chapter 4. Drawing 2D Architectural Objects

Sketching Rectilinear Objects
Sketching Objects with Curves

Chapter 5. FLOOR PLAN (First Floor)

Project Setup
Exterior Walls
Interior Walls
Doors, Openings and Windows
Adding a Fireplace

Chapter 6. FLOOR PLANS (Second Floor and Basement Plans)

View Setup and Enclosing the Shell
Adding the Interior Walls
Adding Doors, Openings and Windows
Basement Floor Plan
Stairs

Chapter 7. ANNOTATION

Text
Dimensions
Tagging
Shared Parameters
Keynoting
Adding Dimensions

Chapter 8. ROOF

Roof Design Options (Style, Pitch and Overhang)
Gable Roof
Low Roof Elements
Skylights

Chapter 9. FLOOR SYSTEMS AND REFLECTED CEILING PLANS

Floor Systems
Ceiling Systems (Susp. ACT and Gypsum Board)
Placing Light Fixtures
Annotations

Chapter 10. ELEVATIONS

Creating and Viewing Exterior Elevations
Modifying the Project Model: Exterior Elevations
Creating and Viewing Interior Elevations
Modifying the Project Model: Interior Elevations
Design Options

Chapter 11. SECTIONS

Specify Section Cutting Plane in Plan View
Modifying the Project Model in Section View
Wall Sections
Annotation and Detail Components

Chapter 12. INTERIOR DESIGN

Bathroom Layouts
Kitchen Layout
Furniture
Adding Guardrails

Chapter 13. SCHEDULES

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

Chapter 14. SITE TOOLS & PHOTO-REALISTIC RENDERING

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

Chapter 15. CONSTRUCTION DOCUMENTS SET

Setting Up a Sheet
Sheet Index
Printing a Set of Drawings

Chapter 16. Introduction to Phasing and Worksharing

Introduction to Phasing
Introduction to Worksharing
Phasing Exercise
Worksharing Exercise