

Revit

Architecture building design software works the way architects and designers think, so Revit can develop higher-quality, more accurate architectural designs. Built for Building Information Modeling (BIM), Revit Architecture helps to capture and analyze concepts and maintain visions through design, documentation, and construction.

At the completion of this course the student will be able to:

- Make designs' drawing comparable.
- Set up a project in the Revit Architecture environment with AutoCAD data.
- Import AutoCAD data to Revit Architecture.
- Export Revit Architecture information to AutoCAD.
- Share project information across multiplatform users and store project data for reuse.
- Using dimensions to determine real design dimensions.
- Make 3D model design from project, adding materials and light.

Course Outline

1. Introduction

2. Core Concepts

- Introducing building information modeling (BIM)
- Working in one model with many views
- Understanding Revit element hierarchy

3. Getting Comfortable with the Revit Environment

- Using the Recent Files screen and the Application menu
- Using the Ribbon and the Quick Access Toolbar (QAT)
- Understanding context ribbons
- Using the Project Browser and navigating views
- Using the Properties palette
- Selection and modification basics
- Accessing Revit options

4. Starting a Project

- Creating a new project
- Understanding the importance of template files
- Understanding project settings
- Opening and saving projects
- Adding levels
- Adding grids
- Adding columns

5. Modeling Basics

- Adding walls
- Using snaps
- Understanding wall properties and wall types
- Locating walls
- Using the modify tools
- Adding doors and windows
- Using constraints
- Adding plumbing fixtures and other components
- Using Autodesk Seek

6. Links, Imports, and Groups

- Working with DWG files
- Creating topography from a DWG link
- Understanding CAD inserts
- Using import tips
- Creating a group
- Working with Revit links
- Managing links
- Understanding file formats

7. Sketch-Based Modeling Components

- Working with floors
- Working with footprint roofs
- Working with extrusion roofs
- Roof modifications and examples
- Working with slope arrows
- Adding openings
- Working with stairs
- Working with railings
- Working with ceilings

8. Complex Walls

- Creating a custom basic wall type
- Understanding stacked walls
- Adding curtain walls
- Adding curtain grids, mullions, and panels
- Creating wall sweeps

9. Visibility and Graphic Controls

- Using object styles
- Working with visibility - graphic overrides
- Using Hide – Isolate
- Understanding view range
- Using the Linework tool
- Using cutaway views

10. Rooms

- Adding rooms
- Controlling room numbering
- Understanding room bounding elements

11. Schedules and Tags

- Understanding tags
- Adding schedules
- Modifying schedules
- Creating a key schedule

12. Annotation and Details

- Adding text
- Adding dimensions
- Adding symbols
- Adding legend views
- Creating a detail callout
- Using detail components
- Adding filled and masking regions

13. The Basics of Families

- Understanding families
- Using reference planes, parameters, and constraints
- Adding solid geometry
- Adding void geometry
- Completing the family

14. Sheets, Plotting, and Publishing

- Adding sheets
- Working with placeholder sheets
- Outputting sheets to a DWF file
- Exporting to AutoCAD
- Plotting and creating a PDF