

Revit Architecture Essentials

Duration:

3 Days

Who should attend?:

Those who want to get to grips with the primary features of Revit Architecture and wish to learn the fundamentals of Building Information Modelling.

Prerequisites:

It is recommended that you have a working knowledge of Microsoft supporting systems. Additionally, it is assumed that the student has past experience working with AutoCAD.

**Course Description:**

This courseware covers the basics of Revit® Architecture, from schematic design through construction documentation. Students are introduced to the concepts of Building Information Modelling and the tools for parametric building design and documentation.

Objectives:

The primary objective of this courseware is to teach students the concepts of Building Information Modelling and introduce the tools for parametric building design and documentation using Revit Architecture. After completing this course, students will be able to:

- Describe the benefits of Building Information Modelling
- Use the fundamental features of Revit Architecture
- Use the parametric 3D design tools to design projects
- Create detailing and drafting views
- Create construction documentation
- Use the presentation tools for presenting models

Course Outline:**Building Information Modelling**

- About Building Information Modelling
- Exploring the User Interface • The Revit Architecture User

Interface

- The Design Bar
- About Building Elements
- About Families
- About Projects
- Beginning a Project
- About Project Templates
- About the Default Project

Template

- About Revit File Types
- About Vector and Raster Data
- Guidelines for Starting a New Project

Starting a Design

- Creating Walls in a Floor Plan
- About Temporary Dimensions
- About Drawing Aids
- Guidelines for Placing Walls
- About Levels
- Defining Levels
- About Grids
- Process of Creating and
- Modifying Grid Lines

The Basics of the Building Model

- About Walls
- About Wall Properties
- Modifying Walls
- Guidelines for Adding and Modifying Walls
- About Joins
- Editing and Preventing Wall Joins
- Guidelines for Editing and Preventing Wall Joins
- About Compound Walls
- About Modifying Compound Walls
- Inserting and Modifying Layers
- About Vertically Compound Walls
- Guidelines for Creating Vertically Compound Walls
- Edit Toolbar
- Tools Toolbar
- Guidelines for Using Editing Tools
- About Doors
- Process of Adding and Modifying Doors
- Creating a New Door Type
- About Windows
- Process of Adding and Modifying Windows
- Guidelines for Adding and Modifying Windows

Loading Additional Building Components

- About Component Families
- Adding Components
- About Modifying Component Families
- Creating and Modifying Component Families

Viewing the Building Model

- About Views
- Creating and Editing Views
- View Properties
- Object Visibility Settings
- Modifying Line Styles
- About User-Defined Filters
- Using Filters
- Guidelines for Modifying Line Styles
- About Section Views
- About Elevation Views
- About Cameras
- Creating and Modifying Camera Views
- Guidelines for Creating and Modifying D Views

Using Dimensions and Constraints

- About Temporary Dimensions
- About Permanent Dimensions
- About Tags
- About Constraints
- Applying and Removing Constraints
- Guidelines for Applying Constraints

Developing the Building Model

- About Floors
- Creating Floors
- Modifying Floors
- Guidelines for Modifying Floors
- About Ceilings
- Modifying Ceilings
- About Roofs
- About Curtain Walls
- About Curtain Grids and

Mullions

- Creating Curtain Walls and Modifying Curtain Grids
- Guidelines for Creating Curtain Walls, Grids, and Mullions
- About Stairs and Railings
- Creating Stairs and Railings
- Guidelines for Adding Stairs and Railings

Detailing and Drafting

- About Callouts
- Creating Reference Callouts
- Guidelines for Creating Callouts
- About Detail Views
- Creating Detail Views
- Process of Saving and Reusing a Detail View
- Guidelines for Saving and Reusing a Detail View
- About Drafting Views
- Process of Reusing Drafting Views

Construction Documentation

- About Schedules
- About Schedule Properties
- Exporting a Schedule
- Modifying Schedule Fields
- Guidelines for Creating and Modifying Schedules
- About Rooms
- About Room Schedules
- Adding Room Tags and Calculating Room Volume
- Modifying Room Area and Volume
- About Material Takeoffs
- About Legends
- Controlling Legend Visibility
- About Keynoting
- Linking Keynote Files and Adding Keynotes
- Guidelines for Creating Legends and Adding Keynotes

Presenting the Building Model

- About Drawing Sheets
- Process of Previewing and Printing Sheets and Views
- Guidelines for Working with Drawing Sheets
- About Revision Tracking
- Creating Revision Clouds
- Process of Using DWF Files
- Guidelines for Managing Revisions

- About Titleblocks
- Creating and Updating Titleblocks
- Guidelines for Creating and Updating Titleblocks
- Rendering with Mental Ray
- Render Scene Settings Dialog Box
- Specifying Radiosity and Raytrace Settings
- Guidelines for Creating

Rendering

- About Walkthroughs
- Exporting a Walkthrough
- Guidelines for Using the Walkthrough Technique
- Sun and Shadow Settings
- Applying Sun and Shadow Settings
- Guidelines for Using Sun and Shadow Settings