

## Revit Architecture 2011 Fundamentals

**Course Description:** Revit Architecture is a powerful Building Information Modeling (BIM) program that works the way Architects think. From Preliminary Design through Design Development, and into Construction Documents, the program streamlines the design process with a central 3D model. Changes made in one view update across all views and on the printable sheets.

This course is designed to teach you the Revit functionality as you would work with it in the design process. Begin by learning about the user interface and the Revit commands for design development, followed by those available for construction documentation.

**Course Objective:** To enable students to create full 3D architectural project models and set them up in working drawings. This training guide focuses on basic tools that the majority of users need to work with Revit Architecture.

### Topics include:

- Understand the purpose of Building Information Management (BIM) and how it is applied in Revit.
- Using the Revit Architecture workspace and interface.
- Working with the basic drawing and editing tools in Revit.
- Creating Levels and Grids as datum elements for the model.
- Creating a 3D building model with walls, curtain walls, windows, and doors.
- Adding floors and roofs to the building model.
- Creating standard and custom stairs.
- Detailing Reflected Ceiling Plans with ceilings and lighting fixtures.
- Adding component features, such as furniture and equipment.
- Setting up sheets for plotting with text, dimensions, details, tags, and schedules.
- Creating details.

**Prerequisites:** an understanding of Architectural terminology is an asset.

### Course Contents:

#### Chapter 1 Building Information Modeling in Revit Architecture

- 1.1 Building Information Modeling
- 1.2 Overview of the Revit Architecture Interface
- 1.3 Revit Architecture Terminology
- 1.4 Starting Revit Projects

#### 1.5 Viewing Commands

#### Chapter 2 Basic Drawing and Editing Tools

- 2.1 General Drawing Tools
- 2.2 Editing Revit Elements
- 2.3 Basic Modifying Tools

### **Chapter 3 Datum Elements - Levels and Grids**

- 3.1 Setting Up Levels
- 3.2 Importing CAD Files
- 3.3 Creating Structural Grids
- 3.4 Adding Columns

### **Chapter 4 Drawing and Modifying Walls**

- 4.1 Drawing and Modifying Walls
- 4.2 Helpful Editing Tools

### **Chapter 5 Doors and Windows**

- 5.1 Adding Doors and Windows
- 5.2 Loading Door and Window Types from the Library
- 5.3 Creating Additional Door and Window Sizes

### **Chapter 6 Curtain Walls**

- 6.1 Creating Curtain Walls
- 6.2 Adding Curtain Grids
- 6.3 Working with Curtain Wall Panels
- 6.4 Attaching Mullions to Curtain Grids

### **Chapter 7 Creating Views**

- 7.1 Duplicating Views
- 7.2 Adding Callout Views
- 7.3 Setting the View Display
- 7.4 Creating Elevations
- 7.5 Creating Sections

### **Chapter 8 Floors**

- 8.1 Creating Floors
- 8.2 Creating Shaft Openings
- 8.3 Creating Sloped Floors

### **Chapter 9 Components**

- 9.1 Adding Components

### **Chapter 10 Reflected Ceiling Plans**

- 10.1 Creating Ceilings
- 10.2 Ceiling Soffits
- 10.3 Adding Ceiling Fixtures

### **Chapter 11 Roofs**

- 11.1 Creating Roofs
- 11.2 Creating Roofs by Footprint
- 11.3 Reference Planes and Work Planes
- 11.4 Creating Roofs by Extrusion
- 11.5 Cleaning Up Wall and Roof Intersections

### **Chapter 12 Vertical Circulation**

- 12.1 Creating Standard and Custom Stairs
- 12.2 Creating Ramps
- 12.3 Working with Railings

### **Chapter 13 Construction Documents**

- 13.1 Setting Up Sheets
- 13.2 Placing and Modifying Views on Sheets
- 13.3 Printing Sheets

### **Chapter 14 Annotating Construction Documents**

- 14.1 Working with Dimensions
- 14.2 Working With Text
- 14.3 Adding Detail Lines and Symbols
- 14.4 Creating Legends

### **Chapter 15 Tags and Schedules**

- 15.1 Adding Tags
- 15.2 Working with Schedules

### **Chapter 16 Detailing in Revit Architecture**

- 16.1 Setting Up Detail Views
- 16.2 Creating Details
- 16.3 Annotating Details
- 16.4 Keynoting and Keynote Legends
- 16.5 Patterning