

## Technical Education Services

### Autodesk® Revit® Architecture Fundamentals



Course Length: 3 days

The Autodesk® Revit® Architecture software 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 training guide is designed to teach you the Autodesk Revit functionality as you would work with it in the design process. You begin by learning about the user interface and the Autodesk Revit commands for design development followed by those available for construction documentation.

Since building projects themselves tend to be extremely complex, the Autodesk Revit Architecture software is also complex. The objective of the Autodesk Revit Architecture Fundamentals training guide is 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 students need to work with the Autodesk Revit Architecture software.

For the current course  
schedule and to register  
for this course:

Web: [redstack.com.au](http://redstack.com.au)

Phone: 1300 667 263

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The topics include the following:

- Understand the purpose of BIM and how it is applied in Revit.
- Navigating 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 component-based 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

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## Table of Contents

### Setting Up the Interface

#### Introduction to BIM and Autodesk Revit Architecture

##### Chapter 1: Introduction to Autodesk Revit Architecture

- 1.1 Building Information Modeling
  - 1.2 Overview of the Interface
  - 1.3 Standard Terminology
  - 1.4 Starting Projects
  - 1.5 Viewing Commands
- ##### Chapter 2: Basic Drawing and Editing Tools
- 2.1 General Drawing Tools
  - 2.2 Editing Elements
  - 2.3 Basic Modifying Tools

### Design Development Phase

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

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

##### Chapter 4: Drawing and Modifying Walls

- 4.1 Drawing Walls
- 4.2 Modifying Walls
- 4.3 Helpful Editing Tools

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### 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

\*Depending on time constraints this chapter may not be covered in the course

### Chapter 7: Creating Views

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

### Chapter 8: Components

- 8.1 Adding Components
- 8.2 Modifying Components

### Chapter 9: Floors

- 9.1 Creating Floors
- 9.2 Creating Shaft Openings
- 9.3 Creating Sloped Floors



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### 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 Assembled Stairs
- 12.2 Modifying Assembled Stairs
- 12.3 Sketching Custom Stairs
- 12.4 Creating Ramps
- 12.5 Working with Railings

### **Construction Documents Phase**

#### 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



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## Chapter 15: Tags and Schedules

- 15.1 Adding Tags
- 15.2 Rooms and Room Tags
- 15.3 Working with Schedules
- 15.4 Creating Legends

## Chapter 16: Detailing in Autodesk 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

## Appendix A: Introduction to Worksets

- A.1 Introduction to Worksets

## Appendix B: Additional Tools

- B.1 Creating Curtain Wall Types with Automatic Grids
- B.2 Annotating Dependent Views
- B.3 Enhancing Views
- B.4 Creating Dormers
- B.5 Creating a Repeating Detail
- B.6 Revision Tracking
- B.7 Creating Schedules
- B.8 Modifying Schedules

## Appendix C: Autodesk Revit Professional: Architectural Exam Objectives



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