

## Technical Education Services

### Autodesk Revit Architecture Fundamentals

**Course Length: 4 days**

The Autodesk Revit software is a powerful Building Information Modeling (BIM) program that works the way architects think. The program streamlines the design process through the use of a central 3D model, where changes made in one view update across all views and on the printable sheets.

This training course is designed to teach you the Autodesk Revit functionality as you would work with it throughout the design process. You begin by learning about the user interface and basic drawing, editing, and viewing tools. Then you learn design development tools including how to model walls, doors, windows, floors, ceilings, stairs and more. Finally, you learn the processes that take the model to the construction documentation phase.

Since building projects are extremely complex, the Autodesk Revit software is also complex. The objective of the Autodesk Revit Architecture Fundamentals training course is to enable students to create full 3D architectural project models and set them up in working drawings. This training course focuses on basic tools that the majority of users need.

#### Topics Covered

- Understanding the purpose of Building Information Management (BIM) and how it is applied in the Autodesk Revit software.
- Navigating the Autodesk Revit workspace and interface.
- Working with the basic drawing and editing tools.
- Creating Levels and Grids as datum elements for the model.
- Creating a 3D building model with walls, curtain walls, windows, and doors.
- Adding floors, ceilings, and roofs to the building model.
- Creating component-based and custom stairs.
- 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 description shown for Autodesk Revit 2018. Topics, curriculum, and/or prerequisites may change depending on software version.*



## Training Guide Contents

### Introduction to BIM and Autodesk Revit

#### Chapter 1: Introduction to BIM and Autodesk Revit

- 1.1 BIM and Autodesk Revit
- 1.2 Overview of the Interface
- 1.3 Starting Projects
- 1.4 Viewing Commands

#### Chapter 2: Basic Sketching and Modify Tools

- 2.1 Using General Sketching Tools
- 2.2 Editing Elements
- 2.3 Working with Basic Modify Tools
- 2.4 Working with Additional Modify Tools

#### Chapter 3: Setting Up Levels and Grids

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

### Design Development Phase

#### Chapter 4: Modeling Walls

- 4.1 Modeling Walls
- 4.2 Modifying Walls

#### Chapter 5: Working with Doors and Windows

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

#### Chapter 6: Working with 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: Working with Views

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

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## **Chapter 8: Adding Components**

- 8.1 Adding Components
- 8.2 Modifying Components

## **Chapter 9: Modeling Floors**

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

## **Chapter 10: Modeling Ceilings**

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

## **Chapter 11: Modeling Roofs**

- 11.1 Modeling Roofs
- 11.2 Creating Roofs by Footprint
- 11.3 Establishing Work Planes
- 11.4 Creating Roofs by Extrusion

## **Chapter 12: Modeling Stairs, Railings, and Ramps**

- 12.1 Creating Component Stairs
- 12.2 Modifying Component Stairs
- 12.3 Working with Railings
- 12.4 Creating Ramps

## **Construction Documents Phase**

### **Chapter 13: Creating 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: Adding Tags and Schedules**

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

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## Chapter 16: Creating Details

- 16.1 Setting Up Detail Views
- 16.2 Adding Detail Components
- 16.3 Annotating Details
- 16.4 Keynoting and Keynote Legends

## Appendix A: Introduction to Worksets

- A.1 Introduction to Worksets

## Appendix B: Additional Tools

- B.1 Reusing Selection Sets
- B.2 Editing Wall Joins
- B.3 Wall Sweeps and Reveals
- B.4 Creating Curtain Wall Types with Automatic Grids
- B.5 Enhancing Views
- B.6 Creating Dormers
- B.7 Working with Guide Grids on Sheets
- B.8 Revision Tracking
- B.9 Annotating Dependent Views
- B.10 Importing and Exporting Schedules
- B.11 Creating Building Component Schedules
- B.12 Creating a Repeating Detail

## Appendix C: Autodesk Revit Architecture Certification Exam Objectives

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## Cancellation Policy

The following cancellation policy shall apply to all training engagements, Live Online, Consulting Services and Dedicated/Custom Training:

- Company reserves the right to reschedule or cancel the date, time and location of its class at any time. In the event that a Training Class is cancelled by Company, Customer is entitled to a full refund. Company shall not be responsible for any other loss incurred by Customer as a result of a cancellation or reschedule.
- For Customer cancellations when written notice is received (i) at least ten (10) business days in advance of the class, the Customer is entitled to a full refund of its payment or reschedule enrollment, (ii) less than ten (10) business days, Customer shall not be entitled to a refund, but shall receive a class credit to be used within three (3) months of the date of the original class.
- Student substitutions are acceptable with at least two (2) days prior notice to the class, provided substitution meets course prerequisites and is approved by Company's Training Coordinator ([trainingcoordinator@rand.com](mailto:trainingcoordinator@rand.com))
- For all Training orders, cancellation notices must be submitted to [trainingcoordinator@rand.com](mailto:trainingcoordinator@rand.com). Company is not responsible for any error in the delivery of the email notice. In the event of any reschedule of Consulting Services and/or Dedicated/Custom Training by Customer, Company will invoice Customer for all non-cancellable travel expenses.

To request more information or to see training locations, visit [www.imaginit.com/contact-us](http://www.imaginit.com/contact-us).

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