AUTODESK®
Authorized Training Center

Revit MEP - Fundamentals Training

AUTODESK® **REVIT®**

Autodesk Revit MEP Fundamentals training guide has been designed to teach the concepts and principles of creating 3D parametric models of MEP system from engineering design through construction documentation.

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Objectives

The training course is intended to introduce students to the software's user interface and the basic HVAC, electrical, and piping/plumbing components that make the Autodesk Revit software a powerful and flexible engineering modelling tool. The training course will also familiarise students with the tools necessary to create, document, and print the parametric model. The examples and practices are designed to take the students through the basics of a full MEP project from linking in an architectural model to construction documents.

Topic's Covered

- Working with the Autodesk Revit software's basic viewing, drawing, and editing commands.
- Inserting and connecting MEP components and using the System Browser.
- Creating HVAC networks with air terminals, mechanical equipment, ducts, and pipes.
- Creating plumbing networks with plumbing fixtures and pipes.
- Creating electrical circuits with electrical equipment, devices, and lighting fixtures and adding cable trays and conduits.

Course Outline

1) Introduction to BIM and Autodesk Revit
2) Basic Drawing and Modify Tools
3) Basic Systems Tools
4) Starting Systems Projects
5) Working with Views
6) Spaces and Zones
7) Energy Analysis
8) HVAC Networks
9) Plumbing Networks
10) Advanced Systems for HVAC and Plumbing
11) Electrical Systems
12) Creating Construction Documents
13) Annotating Construction Documents
14) Adding Tags and Schedules
15) Creating Details

Prerequisites

- It is highly recommended that students have experience and knowledge in MEP engineering and its terminology.

Course Duration: 3 Days

Detailed Course Outline

Introduction to BIM and Autodesk Revit

- BIM and Autodesk Revit
- Overview of the Interface
- Starting Projects
- Viewing Commands

Basic Sketching and Modify Tools

- Using General Sketching Tools
- Inserting Components
- Selecting and Editing Elements
- Working with Basic Modify Tools

Basic Systems Tools

- Connecting Components
- Working with Additional Modify Tools
- Creating Systems - Overview

Starting Systems Projects

- Linking in Revit Models
- Setting Up Levels
- Copying and Monitoring Elements
- Batch Copying Fixtures
- Coordinating Linked Models

Working with Views

- Setting the View Display
- Duplicating Views
- Adding Callout Views
- Elevations and Sections

Spaces and Zones

- Preparing a Model for Spaces
- Adding Spaces
- Working with Spaces
- Creating Zones
- Applying Colour Schemes

Heating and Cooling Loads Analysis

- Preparing a Project for Heating and Cooling Loads Analysis
- Analysing the Heating and Cooling Loads

HVAC Networks

- Adding Mechanical Equipment and Air Terminals
- Adding Ducts and Pipes
- Modifying Ducts and Pipes

Plumbing Networks

- Adding Plumbing Fixtures and Equipment
- Adding Plumbing Pipes
- Modifying Plumbing Pipes
- Adding Fire Protection Networks

Advanced Systems for HVAC and Plumbing

- Creating and Modifying Systems
- Creating Automatic Layouts
- Testing Systems

Electrical Systems

- About Electrical Systems
- Placing Electrical Components
- Creating Electrical Circuits
- Setting up Panel Schedules
- Adding Cable Trays and Conduit
- Testing Electrical Layouts

Detailed Course Outline

Creating Construction Documents

- Setting Up Sheets
- Placing and Modifying Views on Sheets
- Printing Sheets

Annotating Construction Documents

- Working with Dimensions
- Working with Text
- Adding Detail Lines and Symbols
- Creating Legends

Adding Tags and Schedules

- Adding Tags
- Working with Schedules

Creating Details

- Setting Up Detail Views
- Adding Detail Components
- Annotating Details