



Theory	Practical	Total Course Length
37 Hours	37 Hours	74 Hours

Synopsis

In this course you will learn how to create Parametric Models of MEP Systems. Using hands-on exercises in both Imperial and Metric to represent Real-World situations and be able to deal with various Engineering Design Projects.

Prerequisites

Trainee should have knowledge of MEP Engineering Terminology and Computer Aided Design Systems. A basic understanding of computer's operating system, launching an application, creating and saving files is a must.

What will you Learn ?

- Introduction to Autodesk Revit MEP
- Starting New Project
- Linking and Importing CAD
- HVAC, Hydronic Piping, Plumbing & Electrical Systems
- Annotation Construction Documents
- Tags and Schedules
- Views Setup & Sheet Composition
- Managing Project
- Project Team Collaboration
- Phasing and Groups
- Family Concepts & Techniques
- Exporting Views and Sheets
- Plotting
- The Navisworks File System
- Navigating in a Model
- Working with Viewpoints
- The Review Tab
- Dealing with Objects, Sorting and Grouping
- Clash Detection
- The Time Liner
- Presenting, Animating, and Exporting

Outline

- Introduction to Autodesk Revit MEP**
Building Information Modeling and Overview of the Interface.
- Starting New Project**
Project Template, Setup New Project, Levels & Grids, Linking and Importing CAD Files and Inserting Image.
- HVAC Systems**
Adding Air Terminals and Mechanical Equipment, Creating and Modifying Duct Systems, Automatic Ductwork Layouts.
- Hydronic Piping Systems**
Adding Mechanical Equipment, Creating Hydronic Systems and Automatic Piping Layouts.
- Plumbing Systems**
Adding Plumbing Fixtures, Plumbing Systems and Fire Protection Systems.
- Electrical Systems**
Placing Electrical Components, Creating Electrical Circuits, Cable Trays and Conduit and Electrical Panel Schedules.
- Annotation Construction Documents**
Dimensions, Text, Detail Lines and Symbols.
- Tags and Schedules**
Tags, Rooms & Room Tags, Schedules and Legends.
- Views Setup**
Sections, Elevations, Detail Views, Filters and Duplicating View.
- Sheet Composition**
New Sheet Family - Title Blocks, Setting Views on Sheet and Adding Document Information on Sheet.
- Managing the project**
Additional Settings, Transfer Project Standards, Object Styles and Purged Unused.
- Project Team Collaboration**
Worksets, Design Options, Phasing and Groups.
- Family Concepts & Techniques**
Solid and Void Forms, Parametric Framework, Shared Parameters, Symbolic & Model Lines and Additional Information to Family.
- Exporting Views and Sheets**
Exporting to CAD Format, 3ds MAX & Navisworks and Plotting.
- The Navisworks File System**
Navisworks file types, Opening files directly, Appending and merging models.
- Navigating in a Model**
Navigation bar, Walking through model, Rotating model with the Orbit tool, Looking around your model, Using the Gravity tool and View Cube
- Working with Viewpoints**
Saving a viewpoint, Choosing render styles, Changing the background, Slicing your model using section and Getting rid of lines and text.
- The Review Tab**
Getting measurements, Finding the shortest distance between objects
Creating redlines
- Dealing with Objects**
Selecting objects, Overriding Color, Transparency, and Transform, Hiding and turning on objects,
Moving, Rotating & Scaling, Viewing properties and Adding links & Fields, Switching back to Revit and Holding objects.
- Sorting and Grouping**
The Selection Tree, Finding items, Saving Selections Set, Quick Find tool and Selection Inspector.
- Clash Detection**
Creating a clash test and setting rules,
Selecting objects to clash and adding clearances, Running, Resolving & Reducing clashes, Grouping and Assigning clashes,
Creating reports: Viewpoints and HTML.
- The Time Liner**
Configuring appearances, Creating tasks, Adding selection sets to a task, Adding multiple tasks and running the movie, Simulating settings,
Exporting the Time Liner and Adding a data source.
- Presenting, Animating, and Exporting**
Animating saved viewpoints, Animating objects and Creating a script.