

Competency Certificate

in

Revit MEP

Course Outline

MODULE – 1

Introduction
Building information modeling
About bidirectional associativity
Revit architecture basics
Projects
Default project template
Revit file types
Exploring the user interface
The design bar
Building elements
Revit elements and families
Starting a projects

MODULE - 2

Levels
Creating levels
Defining levels
Modifying levels
Introduction to walls
Starting a design

MODULE – 3

Starting a design
Temporary dimensions
Drawing aids
Guidelines for placing walls
Adding & modifying wall
Wall properties

Joints
Modifying complex walls
Interesting and modifying layers
Edit wall joints
Editing and preventing wall joints

MODULE – 4

EDITING COMMANDS
-Trim / extend
-Offset
-Align
-Match
-Move
-Copy
-Visibility of graphics
-Array
-Tap measure

MODULE – 5

Doors
Creating a new door type
Modifying the doors
Windows
Creating a new window types
Modifying windows

MODULE - 6

COMPONENTS

- Adding components
- Modifying components

OPENINGS

- Edit profile
- Wall openings

Managing views

Views

Views templates

MODULE - 7

Section and elevation

Elevation views

Viewing the building model

Creating the editing views

View properties

About 3d views

Creating and modifying the 3d views

About cameras

Creating and modifying the camera views

MODULE - 8

Dimensions and constraints

Working with dimensions

Temporary dimensions

Constraints

Applying and removing constraints

MODULE - 9

FLOORS

- Creating Floors
- Modifying Floors

CEILINGS

- Creating Ceiling
- Modifying Ceiling

ROOFS

- Creating roofs
- Process of sketching roofs modifying roofs

- Join / unjoin roofs

OPENINGS

- Shaft Opening
- Dormer Openings
- Vertical Opening

MODULE - 10

CURTAIN WALLS

- Curtain systems
- Curtain grids and mullions
- Creating curtain walls and modifying curtain grids
- Grids and mullions

STAIRS AND RAILINGS

- Creating Stairs and Railing
- Modifying Stairs and Railing

MODULE - 11

Massing

Create mass solid &void

Place mass

Wall by face

Floor by face

Curtain system by face

Roof by face

Join geometry

Un join geometry

Cut geometry

Don't cut geometry

MODULE - 12

TEXT & TAGS

- Creating text & tags
- Detail and drafting views

CALL OUT

- Call out views
- Creating reference call out

DETAIL VIEW

- Add Construction Detail to a Detail View
- Recusing A Detail View

MODULE – 13

ROOMS

- Room schedules
- Adding room tags and calculate room volume
- Modifying room area and volume
- Material take offs

LEGENDS & KEY NOTES

- Controlling legend visibility
- Key noting
- Linking sadding keynotes files

MODULE – 14

Sheets

- Creating drawing sheets
- Working with drawing sheets
- Creating a title block
- Using existing cad graphics
- Using text and labels
- Using logos and images
- Working with view ports
- Adding annotations
- Printing sheets
- Exporting sheets
- Making sheet revisions

MODULE – 15

REVIT - HVAC

- Introduction to HVAC system
- Creating spaces
- Creating zones
- Load calculation
- Air terminal selection / sizing
- Duct routing
- Ducting sizing
- External static pressure calculation
- Quantity survey

MODULE – 16

REVIT - ELECTRICAL

- Introduction to electrical system
- Lighting calculation
- Working with electrical equipment's
- Load calculation
- Creating circuits and wiring for devices and fixtures
- Editing wiring
- Editing circuits
- Drawing wires manually
- Creating switch system
- Panel properties
- Panel schedules
- Phase distribution

MODULE – 17

REVIT – PLUMBING

- Introduction to plumbing system
- Plumbing fixture
- Pipe sizing
- Supply system
- Drainage system
- Sloping pipe
- Creating routing preference
- Pressure drop calculation

MODULE – 18

REVIT - FIRE FIGHTING

- Introduction to firefighting system
- Sprinkler system
- Fire pump assembly
- Fire riser assembly
- Creating fire protection system
- Filtering fire protection system
- Pipe sizing
- Creating routing preference
- Static pressure calculation

MODULE – 19

PROJECT COLLABORATION

- Preparing your files for sharing
- Working with linked Revit files
- Linking Revit files
- Controlling visibility of Revit links
- Linking cad files
- Maintaining project coordination