

ACT MEP

Competency Certificate

in

Revit MEP

Course Description

Unlock the power of Revit MEP, the industry-leading Building Information Modeling (BIM) software designed for Mechanical, Electrical, and Plumbing (MEP) professionals. This course equips you with the essential skills to create highly accurate and coordinated 3D models, collaborate seamlessly across disciplines, and deliver complex projects with ease.

Course Objectives:

- 1. Develop Proficiency in Revit MEP:** Equip students with the technical expertise to design, model, and document mechanical, Electrical, and Plumbing systems using Revit MEP.
- 2. Enhance BIM Collaboration Skills:** Train students in effective collaboration and coordination techniques within the BIM environment, ensuring smoother project workflows.
- 3. Apply Revit MEP to Real-World Projects:** Provide hands-on experience by engaging students in real-world projects, enabling them to solve practical design and engineering challenges.
- 4. Prepare for Career Growth:** Empower students with industry-recognized skills, leading to better job prospects, faster promotions, and higher earning potential in the MEP sector.

Number of Days

60 Days

Who Should Attend

Aspiring Freshmen

- MEP Engineers seeking to specialize in Revit MEP.
- Fresh graduates in Mechanical, Electrical, or Civil Engineering aiming for a career in MEP.

Experienced Professionals:

- Professionals looking for promotions and higher salaries through Revit MEP skills.
- Architects/Project Managers wanting better collaboration with MEP teams.

Continuing Education Hours

60 Hours

Course Completion Certificate

Yes

Software Used

Revit MEP



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Revit MEP Course

Course Outline

MODULE - 1

- Introduction
- Building information modeling
- About bidirectional associatively
- 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 joint

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 template



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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 view

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
- Detailing 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



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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



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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