Revit MEP **Duration: 100 hrs (50hrs theory / 50hrs lab)**

1. **MEP Essentials**
    a. Linking Discipline Models
    b. Using the System Browser
    c. Using the Project Browser
    d. Creating and Modifying Levels
    e. Controlling Datum Visibility
    f. Using Scope Boxes
    g. Creating and Tagging Spaces
    h. Placing Space Separators
    i. Creating Color Schemes for Lighting Averages
    j. Creating Legends
    k. Creating HVAC Zones
    l. Setting and Showing the Active Work Plane
    m. Creating Reference Planes
    n. Modeling Accurately with Length and Angle
    o. Working with Object Snaps and Snap Increments
    p. Modify Ribbon Tools
    q. Using Visualization Aids When Working in 3D Views
    r. Tagging MEP Elements
    s. Coordinating Between Mechanical and Electrical Disciplines
    t. Interference Check
    u. Interference Check Documentation
2. **HVAC Airside**
    a. Adding Mechanical Equipment
    b. Placing Air Terminals
    c. Placing Air Terminals on Ducts
    d. Creating Duct Systems
    e. Splitting Duct Systems
    f. Duct Settings
    g. Modeling Ductwork
    h. Placing Duct Placeholders
    i. Defining Duct Routing Preferences
    j. Generating Duct Layouts
    k. Sizing Ductwork

l. Adding Duct Accessories
m. Modifying Ductwork and Fittings
n. Adding Duct Insulation
o. Checking Duct Systems
p. Analyzing Duct Systems and Pressure Loss Reports
q. Understanding HVAC Airside Scheduling
r. Understanding HVAC Airside Tags

3. **General Piping**
   a. Pipe Settings
   b. Modeling Piping
   c. Placing Pipe Placeholders
   d. Defining Pipe Routing Preferences
   e. Adding Pipe Accessories
   f. Modifying Piping and Fittings
   g. Adding Pipe Insulation
   h. Creating Parallel Pipes
   i. Modeling Sloped Pipe
4. **HVAC Piping**
   a. Creating Piping Systems
   b. Generating Pipe Layouts
   c. Sizing Pipe
   d. Analyzing Piping Systems
   e. Creating Pipe Pressure Loss Reports
   f. Understanding HVAC Piping Tags
5. **Plumbing**
   a. Adding Plumbing Fixtures
   b. Using Copy and Monitor for Plumbing Fixtures
   c. Placing Pipe Connectors
   d. Creating Plumbing Piping Systems
   e. Splitting Piping Systems
   f. Creating Piping System Types
   g. Working with Piping Components
   h. Laying Out Plumbing Systems
   i. Creating Risers and Underfloor Views
   j. Understanding Plumbing Scheduling
   k. Understanding Plumbing Tags
6. **Electrical**

a. Electrical Settings
b. Specifying Demand Factors and Load Classifications
c. Cable Tray and Conduit Settings
d. Voltage Definitions
e. Distribution Systems
f. Assigning Secondary Systems
g. Wire Types and Sizes
h. Modeling Cable Trays
i. Modeling Conduit
j. Creating Parallel Conduits
k. Adding Electrical Devices
l. Annotation Symbols
m. Applying Panel Schedule Template
n. Mounting Heights Parameter
o. Electrical Label Parameters
p. Fire Alarm Devices
q. Grounding Symbols
r. Settings for Grounding Wire

7. **Power**
   a. Reference Planes and Levels
   b. Placing Electrical Fixtures
   c. Creating and Naming Circuits
   d. Wiring Settings
   e. Wiring Circuits
   f. Checking Circuits
   g. Circuit and Pole Breakers
   h. Creating Power Circuits
   i. Creating Lighting Circuits
   j. Creating Switch Systems
   k. Annotation – Tagging
   l. Wire Placement
   m. Panel Naming
   n. Creating Panel Schedules
   o. Editing Panel Schedule Template Options

8. **Lighting**
   a. Lighting Fixtures and Photometric Data
   b. Placing Lighting Fixtures – Reference Planes

c. Placing Unhosted Lighting Fixtures
d. Emergency Lighting Fixtures
e. Luminaire Schedules
f. Mounting Parameters
g. Using Copy and Monitor for Lighting Fixtures
h. Adding Lighting Switches
i. Creating a Switch System
j. Powering Lighting Systems
k. Analyzing Lighting Systems
l. Rendering Views to Analyze Lighting
m. Managing Lighting with Groups
n. Understanding Lighting Scheduling
o. Lighting Tags

9. **Cable Trays, Conduit and Busway**
   a. Placing Cable Tray or Conduit
   b. Placing Conduit Underground
   c. Selecting Types
   d. Adding/Changing Fittings
   e. Routing Methods
   f. Changing Justifications
   g. Avoiding Obstacles
   h. Creating Service Type Filters
   i. Spot Elevations for Bottom of Cable Tray
   j. Annotation – Tagging
   k. Creating Parallel Conduit Runs
10. **Views and Sheets**
   a. Plan Views
   b. Reflected Ceiling Plan Views
   c. Creating Section Views
   d. Segmenting Section Views
   e. Creating Callout Views
   f. Sketching a Callout View
   g. Creating Drafting Views
   h. Setting Up Detail Views
   i. Importing Details
   j. Creating a Reference View
   k. Duplicating Views

l. Creating Matchlines and View References
m. Creating and Using Sheets
n. Working with Viewports on Sheets
o. Aligning Views on Sheets
p. Using a Sheet List
q. Creating Custom Titleblocks
r. Creating a Key Plan
s. Creating Revision Clouds and Tags
t. Managing Sheet Issues and Revisions
u. Adding a Revision Schedule to a Titleblock

11. **Printing and Publishing**
    a. Printing and Managing Print Settings
    b. Printing to PDF
    c. Publishing Files to Buzzsaw
12. **Managing Your Projects**
    a. Managing Project Information
    b. Specifying a Project Location and Weather
    c. Understanding Coordinate Systems
    d. Relocating a Project
    e. Rotating True North and Project North
    f. Mirroring a Project
    g. Managing Project Browser View Organization
    h. Using Parameters and Filters for Browser Organization
    i. Managing Project Browser Sheet Organization
    j. Project Template Files
    k. Transferring Project Standards
    l. Deleting Unused Items from a Project
    m. Setting the Starting View
13. **Interoperability**
    a. Importing and Managing Image Files
    b. Linking and Importing CAD Files
    c. Managing Linked CAD Files
    d. Controlling the Coordinates of Linked CAD Files
    e. Managing Imported CAD Files
    f. Controlling Line Weights in Imported CAD Files
    g. Working with Point Clouds
    h. Working with IFC

i. Exporting to 2D CAD Formats
j. Exporting to 3D CAD
k. Exporting Views to Image Files
l. Exporting to IFC