

Course Agenda



- Module 00** **Revit in a Nutshell**
Interactive exercise on creating systems, Mechanical and Electrical
- Module 01** **Introducing Revit as a BIM tool**
What is BIM and what does it mean?
The benefits of BIM
What will BIM deliver?
Industry drivers
Introducing Levels of BIM
Implications on team and workflow; fee and deliverables; contract and insurance issues
- Module 02** **UI Tour, Project Navigation and View Creation**
Interactive session introducing the menu and screen layout
Interrogating the model to extract views
 Plans, sections and elevations
 Displaced views, callouts and drafting views
 3D isometrics, perspectives and walkthrough movies
Placement and properties of grids, levels and dimensions
Introduction to basic Revit elements
Exercise on creating levels, grids and using dimensions and scope boxes
- Module 03** **Element Selection and Manipulation**
Interactive session introducing object selection methods
Element properties and manipulation
Instance and Type parameters
Modify tools, Nodes and Snaps
Exercise on basic editing tools, trim, offset, align, etc
- Module 04** **Visibility Control and Categorisation**
Project-Wide Settings
View Specific Overrides
Element Specific Overrides
Individual Line Overrides
Exercise on modifying element visibility
- Module 05** **Model Development Methodology**
Is BIM just about 3D?
Information timeline and overload
How a project develops from a base template
The complexity of components
Controlling graphical display



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- Module 06** **Establishing a Project**
Project units - Common, HVAC, Electrical and Piping
MEP settings, symbols and schematic design
Project commencement and collaboration
Linking CAD and Revit Architecture
Coordination review
Exercise on linking a Revit Architecture model and using copy/monitor tools
- Module 07** **Introduction to Building Elements**
Basic wall definitions, floors, roofs and ceilings
Sketching rules and relating slabs to walls and supports
Slab slopes, roof design and ceiling definition
System family editing
Column and beam placement
Exercise on element placement techniques and developing a composite wall
- Module 08** **Equipment, Fixtures and Fittings**
Family terminology
Component placement
Selecting the correct level - FFL, SSL, Floor Soffit and Ceiling Soffit
MEP workflow
Exercise on hosted elements, visibility controls and multi-storey design
- Module 09** **Introducing Systems**
Setting up the project profile
Main systems
 Mechanical, Electrical and Piping
System browser, connectors and other air systems
Exercise on creating a system generated air supply layout
- Module 10** **Basic Schedules and Legends**
Generation of tabular interrogations of the model
 Scheduling Components
 Style schedules
 Legends
Exercise on creating a schedule and legend

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- Module 11** **Geometry Formation and In-Place Families**
Interactive session on the creation and manipulation of basic solid and void forms
 Extrusion, Blend
 Revolve
 Sweep
 Swept Blend
Exercise explores creating the above forms
- Module 12** **Mechanical Systems**
Mechanical settings
Duct types and fittings
Creating duct and piping systems
Insulating and lining ductwork
Plant and equipment
Mechanical pipework, flanges and fittings
Exercise on completing and checking a ventilation system
- Module 13** **Electrical Systems and Circuits**
Equipment, devices and fixtures
Wiring, cable tray and conduit modelling
Circuits and switch systems
Exercise on electrical service type filters and their use
- Module 14** **Plumbing Systems**
Plumbing settings
Plumbing fixtures
Creating plumbing systems
Creating sanitary systems
Domestic hot and cold-water systems
System browser
Exercise on creating a sanitary system, a piping system and a system type filter
- Module 15** **Spaces, Zones, Areas and Volumes**
Differentiate between spaces, zones, areas and volumes
Defining spaces, bounding elements, tags and schedules
Computation for areas and volumes
Using space data outside of Revit
Colour schemes and legends
Exercise on creating and manipulating spaces



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- Module 16** **2D Draughting and Annotation**
Introducing annotation tools and component categories
Detail component libraries
Repeating details
Lines and arcs
Text, Tags and keynotes
Exercise on generating and annotating a construction detail
- Module 17** **Sheet Compilation and Publication**
Project browser organisation – WIP and Publish
Creating and populating sheets
Working with schedules
Publishing and document management
- Module 18** **Basic Subdivision and Collaboration**
Introducing a BIM Strategy Document
Model management
Project team collaboration techniques
Transmittal and model issue protocols
Basics of large-model sub-division
Exercise on worksets and task allocation
- Module 19** **Introduction to the Principles of Family Editing**
The basic process
10 stages for trouble-free family creation
Exercise on defining a fully parametric mechanical component