# Architecture BIM Diploma
# Part 1 / BIM Engineer
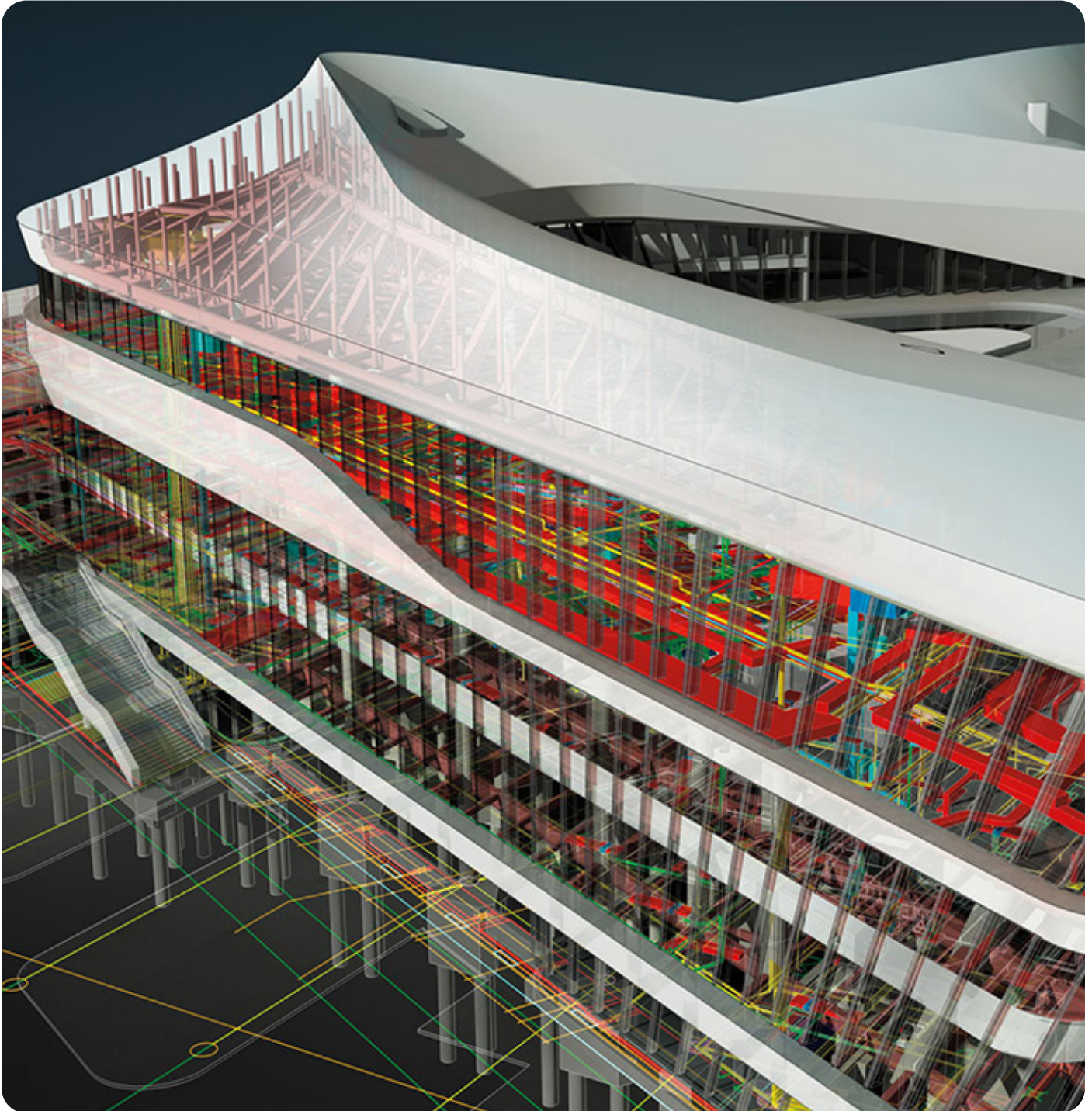
| Module 1 | | Introduction | |
|---|---|---|---|
| **NO** | Module | Content | Hours |
| 01 | **M01.01** **Introduction** | · Introduction to BIM<br>· Understand BIM concepts, workflows, and how Revit fits into a professional BIM process. | |
| 02 | **M01.02** **Introduction** | · User Interface<br>· Learn to navigate Revit's interface and organize projects efficiently. | |
| 03 | **M01.03** **Introduction** | · Navigation and selection tools<br>· Master element selection, modification, and interactive editing tools. | |
| 04 | **M01.04** **Introduction** | · Creating levels and associated plans<br>· Create levels, manage views, and set up projects using custom templates. | |
| 05 | **M01.05** **Introduction** | · Creating axes (grids) and modifying its options<br>· Create and control grids to ensure accurate model coordination. | |

| Module 2 | | Walls | |
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| **NO** | **Module** | **Content** | **Hours** |
| 06 | **M02.01** **Walls** | · Modeling Walls<br>· Model basic, stacked, and in-place Walls using best practices. | |
| 07 | **M02.02** **Walls** | · Custom wall shapes and profile<br>· Create non-standard wall shapes and custom profiles. | |
| 08 | **M02.03** **Walls** | · Creating wall openings<br>· Add and control openings for doors, windows, and services. | |
| 09 | **M02.04** **Walls** | · Creating wall types<br>· Build and modify wall types with proper layer structures. | |
| 10 | **M02.05** **Walls** | · Working with Drawing Tools<br>· Use drawing tools to accurately sketch and control geometry. | |
| 11 | **M02.06** **Walls** | · Working with Modify Tool<br>· Edit elements precisely using Revit modification commands. | |
| 12 | **M02.07** **Walls** | · Creating Wall Sweeps (Cornices) and Reveals<br>· Add architectural details such as cornices and reveals. | |

| Module 3 | | Doors, Windows and furniture | |
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| **NO** | **Module** | **Content** | **Hours** |
| 13 | **M03.01** **Doors, Windows and furniture** | · Inserting Doors and Windows<br>· Insert and control parametric door and window families. | |
| 14 | **M03.02** **Doors, Windows and furniture** | · Adding Components, furniture and plumping fixtures<br>· Add furniture and plumbing fixtures to models. | |
| 15 | **M03.03** **Doors, Windows and furniture** | · Creating furniture plans<br>· Create coordinated furniture layout plans. | |
| 16 | **M03.04** **Doors, Windows and furniture** | · Creating new component types<br>· Create custom component families. | |
| 17 | **M03.05** **Doors, Windows and furniture** | · loading families from Revit libraries I Internet libraries<br>· Import and manage families from libraries and online sources. | |

| Module 4 | | CAD, image underlays | |
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| **NO** | **Module** | **Content** | **Hours** |
| 18 | **M04.01**<br>**CAD, image underlays** | · Importing images and using as a modelling aid<br>· Use images as modeling references. | |
| 19 | **M04.02**<br>**CAD, image underlays** | · Import I link cad files<br>· Link and import CAD drawings into Revit. | |
| 20 | **M04.03**<br>**CAD, image underlays** | · Controlling cad layers visibility and graphics.<br>· Control CAD layer visibility and graphics. | |
| 21 | **M04.04**<br>**CAD, image underlays** | · Using cad files as an underlay for the BIM model<br>· Model accurately using CAD files as underlays. | |

| Module 5 | | Curtain walls | |
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| **NO** | Module | Content | Hours |
| 22 | **M05.01**<br>**Curtain walls** | · Creating Curtain Walls<br>· Design and customize curtain wall systems. | |
| 23 | **M05.02**<br>**Curtain walls** | · Curtain Wall Type properties<br>· Control panels, patterns, and adaptive systems. | |
| 24 | **M05.03**<br>**Curtain walls** | · Embedding curtain walls in basic walls<br>· Integrate curtain walls within basic walls. | |
| 25 | **M05.04**<br>**Curtain walls** | · Embedding basic walls in curtain walls<br>· Insert basic walls into curtain wall systems. | |
| 26 | **M05.05**<br>**Curtain walls** | · Attaching Mullions to Curtain Grids<br>· Attach and control mullions in curtain grids. | |
| 27 | **M05.06**<br>**Curtain walls** | · Working with Curtain Wall Panels<br>· Fa Edit and customize curtain wall panels. mily | |
| 28 | **M05.07**<br>**Curtain walls** | · Adding doors and windows to curtain walls<br>· Add doors and windows to curtain walls. | |
| 29 | **M05.08**<br>**Curtain walls** | · Creating curtain walls with spider system<br>· Create spider glass curtain wall systems. | |
| 30 | **M05.09**<br>**Curtain walls** | · Creating louver systems by curtain walls<br>· Design louver systems using curtain walls. | |
| 31 | **M05.10**<br>**Curtain walls** | · Creating double facade systems using curtain walls<br>· Create advanced double-skin facade systems. | |
| 32 | **M05.11**<br>**Curtain walls** | · Creating Islamic patterns using curtain walls<br>· Design parametric Islamic patterns using curtain walls. | |
| 33 | **M05.12**<br>**Curtain walls** | · Creating nested curtain walls<br>· Build complex nested curtain wall systems. | |

| Module 6 | | Modeling Floors | |
|---|---|---|---|
| **NO** | **Module** | **Content** | **Hours** |
| 34 | **M06.01** <br> **Modeling Floors** | • Modeling Floors <br> • Model structural and architectural floors. | |
| 35 | **M06.06** <br> **Modeling Floors** | • Creating Shaft Openings <br> • Create vertical shaft openings. | |
| 36 | **M06.03** <br> **Modeling Floors** | • Creating Sloped Floors <br> • Design floors with slopes and drainage. | |
| 37 | **M06.04** <br> **Modeling Floors** | • Creating finish floors <br> • Apply finish layers to floors. | |
| 38 | **M06.05** <br> **Modeling Floors** | • Modifying floors using shape editing tools <br> • Modify floors using shape editing tools. | |

| Module 7 | | Modeling Ceilings | |
|---|---|---|---|
| **NO** | **Module** | **Content** | **Hours** |
| 39 | **M07.01** <br> **Modeling Ceilings** | • Modeling Ceilings (automatic and by sketch) <br> • Model ceilings automatically or by sketch. | |
| 40 | **M07.02** <br> **Modeling Ceilings** | • Adding Ceiling Fixtures <br> • Add lighting and ceiling elements. | |
| 41 | **M07.07** <br> **Modeling Ceilings** | • Creating compound ceiling structures <br> • Create layered ceiling systems. | |
| 42 | **M07.04** <br> **Modeling Ceilings** | • Creating Ceiling Soffits and cove lights. <br> • Design ceiling soffits and cove lighting details. | |

| Module 8 | | Modeling Roofs | |
|---|---|---|---|
| **NO** | **Module** | **Content** | **Hours** |
| 43 | **M08.01** <br> **Modeling Roofs** | • Creating Roofs by Footprint <br> • Model roofs using multiple roof methods. | |
| 44 | **M08.02** <br> **Modeling Roofs** | • Reference Planes and Work Planes <br> • Control geometry using reference planes. | |
| 45 | **M08.03** <br> **Modeling Roofs** | • Creating complex roof models <br> • Create advanced roof forms. | |
| 46 | **M08.08** <br> **Modeling Roofs** | • Cleaning up wall and roof intersections <br> • Clean intersections between roofs and walls. | |
| 47 | **M08.05** <br> **Modeling Roofs** | • Joining and disjoining roofs <br> • Control roof connections. | |
| 48 | **M08.08** <br> **Modeling Roofs** | • (Vertical I by face) openings <br> • Create vertical and face-based openings. | |
| 49 | **M08.07** <br> **Modeling Roofs** | • Creating Dormers- dormer openings <br> • Design dormers and roof openings. | |
| 50 | **M08.08** <br> **Modeling Roofs** | • Creating Roof soffits, Gutters and facias <br> • Add roof finishes and drainage elements. | |

| Module 9 | | Stairs, Ramps and Railings | |
|---|---|---|---|
| **NO** | **Module** | **Content** | **Hours** |
| 51 | **M05.01**<br>**Stairs, Ramps and Railings** | •   Creating stairs by sketch (linear- spiral)<br>•   Design linear and spiral stairs. | |
| 52 | **M05.02**<br>**Stairs, Ramps and Railings** | •   Creating complex stair shapes<br>•   Create advanced stair geometries. | |
| 53 | **M05.03**<br>**Stairs, Ramps and Railings** | •   Creating multi-level stairs<br>•   Design stairs spanning multiple levels. | |
| 54 | **M05.04**<br>**Stairs, Ramps and Railings** | •   Creating Component Stairs (Linear- spiral)<br>•   Use stair families effectively. | |
| 55 | **M05.05**<br>**Stairs, Ramps and Railings** | •   Assembled (Steel and wood) stairs type properties<br>•   Control steel and wood stair properties. | |
| 56 | **M05.06**<br>**Stairs, Ramps and Railings** | •   (Vertical by face) openings<br>•   Create openings by face. | |
| 57 | **M05.07**<br>**Stairs, Ramps and Railings** | •   Concrete (Cast-inplace and precast) type properties<br>•   Model cast-in-place and precast stairs. | |
| 58 | **M05.08**<br>**Stairs, Ramps and Railings** | •   Creating stair shaft openings<br>•   Create stair shaft openings. | |
| 59 | **M05.09**<br>**Stairs, Ramps and Railings** | •   Modelling Railings<br>•   Model and customize railing systems. | |
| 60 | **M05.10**<br>**Stairs, Ramps and Railings** | •   Modifying Railings type properties<br>•   Modify railing parameters. | |
| 61 | **M05.11**<br>**Stairs, Ramps and Railings** | •   Creating Custom Railings<br>•   Create unique railing designs | |
| 62 | **M05.12**<br>**Stairs, Ramps and Railings** | •   Creating Ramps<br>•   Design accessible ramp systems. | |

| Module 10 | Documentation and schedules |
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| NO | Module | Content | Hours |
|----|--------|---------|-------|
| 63 | **M10.01**<br>**Documentation and schedules** | · Creating (floor- ceiling) plan views<br>· Create floor and ceiling plans for documentation. | |
| 64 | **M10.02**<br>**Documentation and schedules** | · Duplicating Views<br>· Duplicate views with proper detailing. | |
| 65 | **M10.03**<br>**Documentation and schedules** | · Adding Callout Views<br>· Create callout views. | |
| 67 | **M10.04**<br>**Documentation and schedules** | · Creating detail views<br>· Produce detailed construction views. | |
| 68 | **M10.10**<br>**Documentation and schedules** | · Creating section views- 30 sectional views<br>· Generate professional sectional views. | |
| 69 | **M10.06**<br>**Documentation and schedules** | · Adding text and dimension to views<br>· Annotate drawings correctly. | |
| 70 | **M10.07**<br>**Documentation and schedules** | · Introduction to schedules and BOQs<br>· Create quantity schedules. | |
| 71 | **M10.08**<br>**Documentation and schedules** | · Using schedules templates<br>· Use and manage schedule templates. | |
| 72 | **M10.09**<br>**Documentation and schedules** | · Creating sheets and placing views to it<br>· Assemble drawing sheets. | |
| 73 | **M10.10**<br>**Documentation and schedules** | · Export views and sheets to Autocad<br>· Export drawings to AutoCAD. | |
| 74 | **M10.11**<br>**Documentation and schedules** | · Printings sheets and views<br>· Print sheets and views correctly. | |