## Revit Architecture - syllabus

<table>
<thead>
<tr>
<th>Revit Architecture</th>
<th>Total Duration : 120 Hours</th>
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<tbody>
<tr>
<td><strong>Session</strong></td>
<td><strong>Topics</strong></td>
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<td><strong>1</strong></td>
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<td>▪ History</td>
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<td>▪ Features</td>
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<td>▪ Revit File Types</td>
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<td>▪ Exploring User Interface</td>
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<td>▪ Building Elements</td>
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<td>▪ Start a New Project</td>
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<td><strong>2</strong></td>
<td>• To Start a Project</td>
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<td>o Drawing Aids</td>
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<td>▪ Adding Levels</td>
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<td>▪ Modifying Levels</td>
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<td>▪ Creating New Level Element Type</td>
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<td>▪ Constrain Level lines</td>
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<td>▪ Remove Constrains</td>
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<td>▪ Remove Level lines</td>
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<td>• Drawing a plan as per Dimension</td>
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<td>o Creating Walls</td>
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<td>o Tips for Creating Wall</td>
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<td>• Practice: Hands On</td>
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<td><strong>3</strong></td>
<td>• More in Detail – Wall</td>
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<tr>
<td></td>
<td>o Compound Structure</td>
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<td>o Wall joins</td>
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<td>o Wall Layer Wrappings</td>
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<td>o Stacked Wall</td>
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<td>o Guidelines for Vertically Stacked Walls</td>
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| 4 & 5 | - Construction Modelling Tool  
|       |   - Parts  
|       |   - Assemblies  
|       | - Working with Grids  
|       | - Practice: Hands On  
|       | - Modify Tools  
|       |   - Move  
|       |   - Copy  
|       |   - Paste  
|       |   - Create Similar  
|       |   - Rotate  
|       |   - Mirror  
|       |   - Array  
|       |   - Scale  
|       |   - Split Element  
|       |   - Trim  
|       |   - Align  
|       |   - Offset  
|       |   - Pin  
|       |   - Unpin  
|       |   - Delete  
|       | - Door  
|       | - Window  
|       | - Match Type  
|       | - Tape Measure  
|       | - Keyboard Shortcuts  
|       | - Visual Styles  
|       | - Practice: Hands On  
| 6    | - Dimensions  
|       |   - Temporary Dimensions  
|       |   - Permanent Dimension  
|       |   - Creating Custom Dimension Type  
|       |   - Modify Dimensions  
|       | - Constrains  
| 7    | - Floor  
|       |   - Adding Floor  
|       |   - Editing Floor Sketch  
|       |   - Sloped Floor  
|       |   - Floor Slab Edges  
|       | - Ceiling  
|       |   - Creating Ceiling  
|       | - Practice: Hands On |
- **Roof**
  - Roof by Footprint
  - Roof by Extrusion
  - Shape editing for Floors and Roofs
  - Join/Unjoin Roof
  - Roof Soffit
  - Roof Fascia
  - Roof Gutter

- **Opening**
  - Opening on Face and Vertical opening
  - Shaft Opening
  - Wall Opening
  - Dormer Opening

- **Practice: Hands On**

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- **Components**
  - Placing Component
  - Rehosting
  - Workplane based and Face based Placement
  - Working with Modern Medium Library

- **Managing Views**
  - Floor plan views
  - Ceiling plan view
  - View properties
  - View Range
  - Plan Region
  - Elevation view
  - Cut a view by Far Clip Plane
  - Section View
  - Creating Section head
  - 3D views
  - Cropping a View
  - Visibility or Graphics Display
    - Specifying Element Category Visibility
    - Overriding Graphics Display of Element Category
    - Overriding Visibility and Graphics Display of Individual Elements
  - View Templates
  - Filter

- **Practice: Hands On**

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- **Curtain wall**
  - Creating Curtain Wall
  - Curtain Grids
  - Mullions
| 11 | Reshaping Curtain Wall Panels  
|    | Merging Curtain Grids  
|    | Adding Curtain Door Panel  
|    | Embedded Walls  

| 12 & 13 | Stairs  
|        | Creating Stairs  
|        | Creating Stair by sketching Runs  
|        | Creating Stair by sketching Boundary and Riser  
|        | Spiral Staircase  
|        | Stair Calculator  
|        | Specifying Railing Types for New Stairs  
|        | Modifying Stair  
|        | Ramp  
|        | Railings  
|        | Adding Railing  
|        | Modifying Rail Structure  
|        | Modifying Rail Joins  
|        | Practice: Hands On  

| 12 & 13 | Massing  
|        | Terminology  
|        | Create Mass Family using Forms  
|        | Extrusion  
|        | Loft  
|        | Revolve  
|        | Sweep  
|        | Swept Blend  
|        | Modifying Forms  
|        | Dimensioning Forms  
|        | Surface Forms  
|        | Rationalizing Surface  
|        | Surface Representations  
|        | Surface Sub regions  
|        | Paint Tool  
|        | Placing Mass Instance from Mass Family  
|        | Creating Building Elements from Mass Instance  
|        | Mass Floors  
|        | Creating Wall  
|        | Creating Floors  
|        | Creating Curtain System  
|        | Creating Roof  
|        | Updating Face-based Host Shapes  
|        | Conceptual Energy Analysis  
|        | Display Styles for analysis add-in applications |
| 14 | Controlling Visibility of Mass Instances  
|    | Practice: Hands On  
|    | • Text  
|    | • Model Text  
|    | • Tag  
|    | • Callout Views  
|    | • Detailing  
|    |  o Creating Detail View  
|    |  o Drafting View  
|    |  o Inserting Detail Component  
|    | • Practice: Hands On  
| 15 | • Schedules  
|    |  o Schedule/ Quantities  
|    |  o Material Take Off  
|    |  o Annotation Schedule or Note Block  
|    | • Practice: Prepare Door and window schedule for Residential Building.rvt  
| 16 | • Rooms  
|    | • Schedule keys  
|    | • Area  
|    | • Color Schemes  
|    | • Legend Views  
|    | • Keynotes  
|    | • Practice: Find out the total area, Place rooms and prepare room schedule  
| 17 | • Structural Modelling  
|    |  o Structural Column  
|    |  o Beams  
|    |  o Beam System  
|    |  o Brace  
|    |  o Trusses  
|    |  o Opening in Structural Elements  
|    |  o Structural Walls  
|    |  o Foundations  
|    |  o Structural Floor  
| 18 | • Sheets  
|    |  o Title Blocks  
|    |  o Adding Sheet  
|    |  o Adding Views on Sheet  
|    |  o Sheet list  
|    | • Printing  
|    |
| 19 | o Print Setup  
|    | o Print Preview  
|    | • Practice: Add sheet along with title block  
|    | Prepare Approval Plan  
|    | • Lights  
|    | o Adding Lighting Fixtures  
|    | o Light Groups  
|    | o Sun settings  
|    | • Materials  
|    | • Rendering  
|    | • Walkthroughs  
|    | o Exporting Walkthrough  
|    | • Solar Studies  
|    | o Create Solar Study  
|    | o Export Solar Study  
|    | • Practice: Create realistic images for exterior and interior view  
|    | Export walkthrough in .avi format  
| 20 | • Site Design  
|    | o Toposurfaces  
|    | o Subregion  
|    | o Split Surface  
|    | o Merge Surface  
|    | o Building Pad  
|    | o Graded Region  
|    | o Parking Components  
|    | o Site Components  
|    | o Contour line Labels  
| 21 | • Working with a Team  
|    | o Worksharing Workflow  
|    | o Worksets  
|    | o Worksharing Display Modes  
|    | o Starting a view  
| 22 | • Working with Linked Models  
|    | o Link Revit Models  
|    | o Managing links  
|    | o Shared Positioning  
|    | o Using Point cloud files  
| 23 | • Design Options  
|    | • Project Phasing  
<p>|    | o Creating Phases  |</p>
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|   |   | o Phase Filter
|   |   |   | Export
|   |   |   |   | Export to CAD format
|   |   |   | Exporting to DWG or DXF
|   |   | Exporting to DWF format
|   | Room and Area Reports
|   | Exporting to IFC
|   | Export to 3d’s max
|   |   | Decals
|   |   | Transferring Project Standards
|   |   | Interference Check
|   |   | Customizing Project Settings
|   |   |   | Fill patterns
|   |   |   | Line Weight
|   |   |   | Line Patterns
|   |   |   | Line Styles
|   | Purge Unused
|   | Import/Link
|   | Group
|   |   |   | Family Creation
|   |   |   |   | Introduction
|   |   | Creating 2D door Family
|   |   | Creating the Door panel Solid geometry
|   |   |   | Family Creation
|   |   |   | Creating Swing Door Family
|   |   | Creating Swing Door Family
|   |   | Window Family creation
|   |   | Creating Swing Door Family
|   |   |   | Family Creation
|   |   | Creating Arched Window
|   | Creating Furniture Family
|   |   |   | Family Creation
|   |   | Staircase Customization
|   |   |   | Stair Nosing
|   |   |   | Custom Handrail
|   |   |   | Custom Balusters
|   | Family Creation with Adaptive Components
|   |   | Adaptive Components
|   | Creating Curtain Panel Pattern 1
|   |   |   | Family Creation With Adaptive Components
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</table>
|   | o Curtain Panel Pattern 2  
|   | o Create Helix |
| 30 | • Family Creation With Adaptive Components  
|    | o Grill Design  
|    | o Reporting Parameter  
|    | o Family enhancements |