

1- BIM Fundamental

BIM Introduction

- BIM Definition
- Macleamy curve
- Integrated project delivery (IPD)
- BIM throughout project life cycle
- BIM model ?
- BIM methodology
- BIM dimentions
- BIM workflow
- Level of development (LOD)

2- Revit Essential (Modeling) Course

Part 1

Essential

- Getting started with interface & Application menus
- Revit element & family in Revit
- Options & Properties
- Quick access Toolbar & Ribbons
- Project browser & properties palette

- **Start a project**
 - Elements creation – Elements modification
 - Creat views (levels , Elevations , Sections , Details)
 - [Reference info \(CAD – IMG – PDF \)](#)
 - Datum elements (Grids – Level)

- **Build elements :**
 - **Structure columns**
 - columns properties
 - the difference between structure columns and column : architecture
 - multiple columns (at grids)
 - **Walls (wall creation – wall modefication)**
 - wall properties
 - wall layers
 - wall sweep
 - wall reveal
 - Profile family creation
 - Curtain walls (creation & modification)
 - curtain wall properties
 - curtain grids
 - curtain mullion
 - mullion profile
 - Stacked wall
 - **Floors**
 - sketch (create floor boundary)

- floor properties
- floor layers
- slab edge
- sloped floor
- modify sub elements
- Copy elements from level to level
- Create groups
- Create similar
- Doors & Windows (insert – properties)
- **Roofs**
 - create roof boundary
 - roof by footprint
 - roof by extrusion
 - roof soffit & fascia & gutter
- **Ceilings**
 - automatic ceiling
 - sketch ceiling
 - ceiling properties

Room & Area :

- **Create rooms**
 - room separator
 - tag room
 - color scheme
- **Create area**
 - area boundary
 - tag area

Circulation elements :

- **Stairs**
 - stairs types in Revit
 - create stair
 - stair properties (calculation rules – construction)
 - multistory stairs
 - stair by sketch
- Ramps
- Railing

- **Opening : shaft**

Component

- place component
 - **Model in place (solid and void)**
 - extrusion & void extrusion
 - blend & void blend
 - revolve & void revolve
 - sweep & void sweep
 - swept blend
 - **Model text**

3- Views (Elements and Tools)

View elements and tools :

- **Graphics**
 - view template
 - visibility and graphics
 - filters
 - cut profile
- **3D views**
 - 3D views properties
 - camera
 - navigation wheel
- **Sections**
 - Creating sections
 - breaking & editing crop view
 - Section head family
 - sections - working drawing
- **Callout**
 - create callout view (plan detail – wall section – details)
- **Drafting view**
- **Legend**
- **Sheets**
 - create sheet
 - creat sheet family
 - place view in sheet
 - Print PDF

- 4- **Manage Tools**
- 5- **Schedules and Quantities**
- 6- **Site**
- 7- **Views Properties & Settings**

Part 1

Manage tools :

- Materials
- Object style
- Snaps
- Project information
- Transfer project standards
- Purge unused
- **Additional settings**
 - line styles , line weights and line patterns
 - annotations

Schedules and Quantities :

- **create schedule**
 - Doors schedule
 - Windows schedule
 - custom schedule
- Material takeoff
- Quantity Surveying QS
- Sheet list
- Note block
- View list

Site :

- **Toposurface**
 - place points
 - creat toposurface from imported CAD file
- Site coponent
- Building pad
- Modify site

Views Properties & settings :

- View range
- Section box
- Detail level
- Visual style

PART 2

01 - GROUPS

- Introducing Groups
- Creating a Model Group
- Creating and Managing Model and Detail Groups
- Attaching Annotation Detail Groups
- Creating Detail Groups
- Editing Groups
- Making Parameters Vary Between Groups
- Excluding Elements from Groups
- Converting Groups to Links
- Saving and Loading Groups
- Understanding Best Practices for Working with Groups

02 - WORKSHARING

- Introducing Worksharing Concepts
- Understanding Worksharing Terminology
- Enabling Worksharing in a Project File
- Creating the Central Model
- Creating a Local Model
- Creating Worksets
- Understanding Workset Visibility
- Understanding How Central and Local Files Communicate
- Closing a Workshared Project
- Understanding Editing Requests
- Understanding the Active Workset
- Understanding Worksharing Display Modes
- Specifying Open Worksets
- Detaching a File from Central

03 - COLLABORATION

- Linking Revit Models
- Controlling the Coordinates in Linked Revit Models
- Controlling the Display of Elements in a Linked Model
- Tagging Elements in a Linked Model
- Monitoring and Coordinating Changes Within a Single Project
- Using Copy and Monitor in a Single Project
- Using Copy and Monitor with Linked Projects
- Checking For Interferences

04 – PHASES

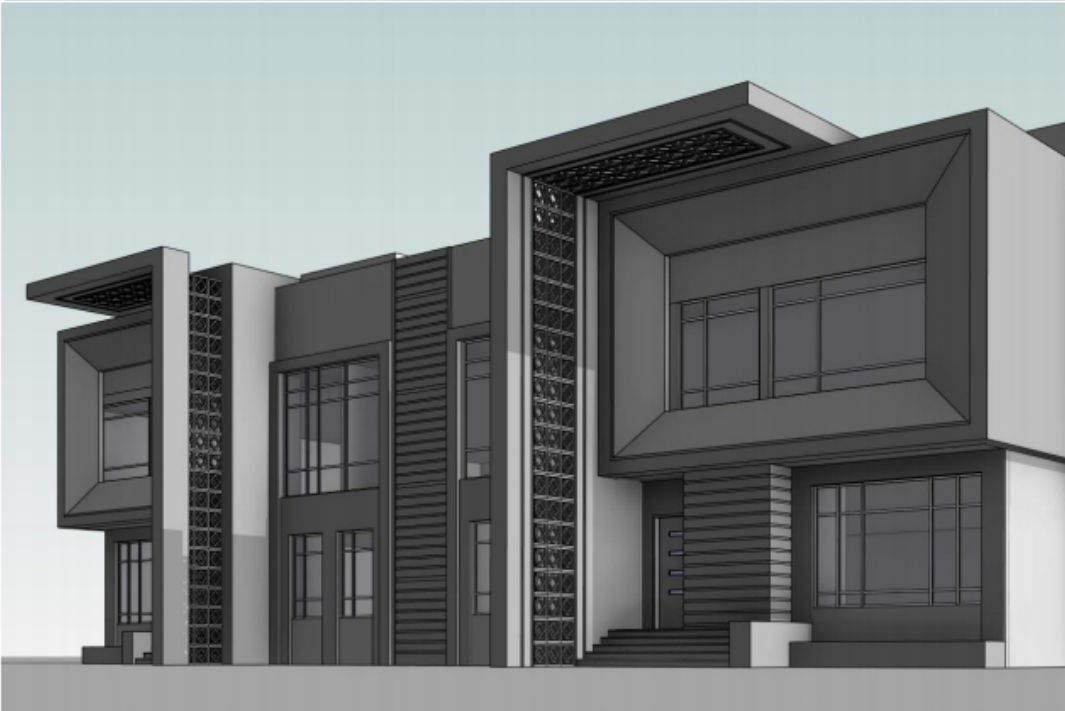
05 - DESIGN OPTIONS

Phasing :

01. Understanding phasing
02. Assigning phasing properties to objects
03. Adding a new phase
04. Assigning phasing properties to views
05. Utilizing phase filters and graphic overrides
06. Managing phases
07. Assigning phasing to rooms
08. Applying phasing to schedules
09. Phasing levels and grids
10. Managing compound-element phasing
11. Looking at topography and phasing

Design Options :

01. Understanding design options
02. Setting up option sets and options
03. Looking at primary options
04. Managing design options
05. Working with design option view settings
06. Presenting design options
07. Strategizing design options







مشروع ثالث - سنطبق عليه بعض الأوامر المهمة (مع أخذه كتاسك)



