Autodesk Revit Architecture
Course details

AUTODESK Revit

Description

Revit® software is specifically built for Building Information Modeling (BIM), empowering design and construction professionals to bring ideas from concept to construction with a coordinated and consistent model-based approach. Revit is a single application that includes features for architectural design, MEP and structural engineering, and construction.

Revit software works the way architects and designers think, so you can develop higher-quality, more accurate architectural designs. You can use tools built to support Building Information Modeling (BIM) workflows, capture and analyze concepts, and maintain your vision through design, documentation, and construction.

Revit software helps you get better construction insight from design models. Any change that you make to your design model is automatically updated throughout your documentation.

Resourcing, text books and reading material:

We recommend the following resources:

- Mastering Autodesk Revit Architecture
- Autodesk Revit Architecture Essentials

Web resources:

- www.autodesk.com/products/autodesk-revit-family/overview
- http://seek.autodesk.com/
- http://help.autodesk.com/view/RVT/2023/ENU/

Prerequisites:

- Basic knowledge and skills about using computers.
- Architecture background is recommended

Certificates:

Certificate from CAD MASTERS
Certificate from Autodesk

Grading:

Attendance   40%
Assignments   60%

To pass the course and receive both Autodesk certificate & CAD MASTERS certificate you should:

- Attend at least 80% of course hours
- Score more than 70% as a total score

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Course Outline:

Level 1- Autodesk Revit (Architecture) professional – course outline

This course including the following:

A. Introduction:
1. The Basics of BIM
2. What Is Revit?
3. Revit hierarchy

B. Introducing the Autodesk Revit Architecture Interface
1. Application Menu
2. Quick Access Toolbar
3. Info Center
4. Ribbon
5. Drawing Area
6. Properties Palette
7. Project Browser
8. Status Bar
9. View Control Bar
10. View Cube
11. Options Bar
12. Navigation Methods
13. Selecting Elements

C. Start a project
1. Creating a project
2. Project template
3. Opening files
4. Saving files
5. Units
6. Modify tools

D. Datum elements
1. Levels
2. Grids

E. Walls
1. Placing walls
2. Modifying walls
3. Wall type properties
4. Wall instance properties
5. Wall sweeps
6. Wall reveals

F. Doors, Windows, components and architectural columns
1. Placing doors
2. Change door type
3. Load door family
4. Placing windows
5. Change window type
6. Load window family
7. Placing components
8. Placing arch columns

G. Floors, Roofs, and Ceilings
1. Adding floors
2. Editing a floor sketch
3. Multilayer floor
4. Floor properties
5. Create a roof (foot print-by extrusion)
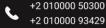6. Roof slope
7. Sloped glazing roofs
8. Creating a ceilin

H. Openings
1. By face
2. Shaft openings
3. Wall openings
4. Vertical opening
5. Edit wall profile

I. Stairs, Ramps, and Railings
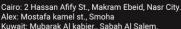1. Creating a run component
2. Modify stair components
3. Creating a stair component by sketching
4. Stair by component properties
5. Numbering treads and risers
6. Adding a ramp
7. Ramp properties
8. Creating a rail by sketch
9. Place a railing on host
10. Railing properties

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J. Curtain walls
1. Creating Curtain Walls
2. Curtain Grids
3. Adding Mullions
4. Embedding Curtain Walls
5. Modifying Curtain Walls
6. Editing the wall Profile
7. Placing doors and windows

K. In-place Families
1. Extrusion
2. Sweep
3. Blend
4. Revolve
5. Swept blend

L. Rooms and Color-Fill Plans
1. Defining Rooms in Spaces
2. Room Separation Lines
3. Deleting Rooms
4. Generating Color-Fill Room Plans
5. Adding a Color Legend
6. Modifying Color Schemes

M. Materials, Rendering, and Visualization
1. Using Materials
2. Editing Material Properties
3. Rendering options.
4. Save and export images

N. Creating views
1. 2D views (plans-sections-elevations-callout)
2. 3D views
3. Schedules
4. Sheets
5. Visibility and graphics in views

O. Details and Annotations
1. Detail Line
2. Region (filled - masking)
3. Component
4. Insulation
5. Dimensions
6. Tags
7. Text

P. Print/Export
1. Print setup
2. Print to pdf
3. Export to cad formats
4. Export image
5. Export reports to excel
6. Export to 3d max

Q. Site Modeling
1. Modeling a Site
2. Using a Topo surface
3. Creating a Building Pad
4. Generating Property Lines
5. Cut and Fill Schedules

R. Intro to Conceptual Mass
1. Conceptual Mass Interface
2. Create forms
3. Mass floors
4. Model by face

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