

Autodesk REVIT (Architecture)

Course details



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.

Course structure:

Level 1- Autodesk Revit (Architecture) professional	35hour
Level 2- Autodesk Revit (Architecture) expert	35hour

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/2015/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



Course Outline:

Level 1- Autodesk Revit (Architecture) professional – course outline - 35 hours

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

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

C. Start a project

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

D. Datum elements

1. Levels
2. Grids

E. Walls

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

F. Doors, Windows, components and architectural columns

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|---------------------|-------------------------|
| 1. Placing doors | 5. Change window type |
| 2. Change door type | 6. Load window family |
| 3. Load door family | 7. Placing components |
| 4. Placing windows | 8. Placing arch columns |

G. Floors, Roofs, and Ceilings

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|---------------------------|--|
| 1. Adding floors | 5. Create a roof (foot print-by extrusion) |
| 2. Editing a floor sketch | 6. Roof slope |
| 3. Multilayer floor | 7. Sloped glazing roofs |
| 4. Floor properties | 8. Creating a ceiling |



H. Openings

1. By face
2. Shaft openings
3. Wall openings

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

J. Curtain walls

1. Creating Curtain Walls
2. Curtain Grids
3. Adding Mullions
4. Embedding Curtain Walls

K. In-place Families

1. Extrusion
2. Sweep
3. Blend

L. Rooms and Color-Fill Plans

1. Defining Rooms in Spaces
2. Room Separation Lines
3. Deleting Rooms

M. Materials, Rendering, and Visualization

1. Using Materials
2. Editing Material Properties

N. Creating views

1. 2D views (plans-sections-elevations-callout)
2. 3D views

O. Details and Annotations

1. Detail Line
2. Region (filled - masking)
3. Component
4. Insulation

P. Print/Export

1. Print setup
2. Print to pdf
3. Export to cad formats

4. Vertical opening
5. Edit wall profile

6. Adding a ramp
7. Ramp properties
8. Creating a rail by sketch
9. Place a railing on host
10. Railing properties

5. Modifying Curtain Walls
6. Editing the wall Profile
7. Placing doors and windows

4. Revolve
5. Swept blend

4. Generating Color-Fill Room Plans
5. Adding a Color Legend
6. Modifying Color Schemes

3. Rendering options.
4. Save and export images

3. Schedules
4. Sheets
5. Visibility and graphics in views

5. Dimensions
6. Tags
7. Text

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

R. Intro to Conceptual Mass

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

4. Generating Property Lines
5. Cut and Fill Schedules

