

# Autodesk Revit Structure Expert

## Course details



### Course Description:

The Revit Structure building information model combines a physical representation of the building fully associated with an analytical representation. This common, computable building model is used for structural design, drawing production, and coordination – and drives third-party structural analysis applications. Revit can be used as a very powerful collaboration tool between different disciplines in the building design sphere.

### Objectives:

This course covers advanced tools of Revit Structure, from sharing your project through to advanced content creation. Delegates are taught the advanced concepts of Structural Building Information Modelling and the advanced tools for parametric building design, documentation and basic structural analysis. We also look at links with Autodesk Structural Detailing and Robot Structural Analysis.

### Course textbooks and other reading materials:

#### Web Resources:

- <https://www.autodesk.com/products/revit/overview>
- <https://help.autodesk.com/>



### Prerequisites:

- Revit Structure background is a must
- Engineering background is recommended
- Basic knowledge and skills about using computers

### Grading:

Attendance 40%

Assignments 60% (Workshops & Projects)

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

- Attend at least 80% of course hours
- Score more than 70% as a total score + Technical evaluation by the instructor



+2 010000 50300

+2 010000 93429



Cairo: 2 Hassan Afify St., Makram Ebeid, Nasr City.

Alex: Mostafa kamel st., Smoha

Kuwait: Mubarak Al kabier., Sabah Al Salem.



[www.cadmasters.org](http://www.cadmasters.org)



## Course Outline:

This course including the following:

### Prepare Construction Documents:

- Sheets
- Title Blocks
- Viewports
- View Titles on Sheets
- Scheduling on Sheets
- View Scale
- Duplicate Views
- Legends

### Collaboration:

- Linking Models
- Work-sharing: Enable work sets
- Copy Monitor

### Coordination:

- Coordinate Bet. Disciplines
- Interference Check Between Models
- Synchronization Workflow

### Advanced modeling (model in place):

- Creating Irregular Shapes for Structure elements
- How to Pick a Reference Plane.
  - Extrusion
  - Blend
  - Revolve
  - Sweep
- Create Void Forms

### Family creator and editor:

- Editing an Existing Family
  - Edit tag Family
  - Create a new Tag Family
  - Adding Labels
- Family Template (Stand Alone Families, Hosted Families)
- Family category and Parameters.
- Reference Planes (Identify data, types)
- Project Family Parameters & Materials)
- Shared Parameters
- Family Specs (Identify data, types & Materials)
- Completing Families
- Work Shop



+2 010000 50300

+2 010000 93429



Cairo: 2 Hassan Afify St., Makram Ebeid, Nasr City.  
Alex: Mostafa kamel st., Smoha  
Kuwait: Mubarak Al kabier., Sabah Al Salem.



[www.cadmasters.org](http://www.cadmasters.org)



**Advanced view properties:**

- View range
- Plan Region
- View Template (Modify & Create New View Template)
- Scope Box
- Duplicate Views

**Project setting:**

- Line styles
- Line weights
- Object Styles
- Custom Fill Patterns
- Creating Templates

**\* Final workshop and Questions**



+2 010000 50300

+2 010000 93429



Cairo: 2 Hassan Afify St., Makram Ebeid, Nasr City.  
Alex: Mostafa kamel st., Smoha  
Kuwait: Mubarak Al kabier., Sabah Al Salem.



[www.cadmasters.org](http://www.cadmasters.org)

