Overview
This course covers the basics of Autodesk Revit Structure. Users are introduced to the concepts of Building Information Modelling and the tools for parametric design and documentation. They learn the fundamental features of Autodesk Revit Structure, learn to use the 3D parametric design tools for creating a project, and finish with construction documentation and design visualization.

Prerequisites
- It is recommended that delegates are Microsoft Windows proficient.
- No previous CAD experience is necessary. However, it is recommended that you have working knowledge of basic structural engineering and design skills.

Software
- Revit 2020

What’s Included?
- Course Notes & Stationery*
- Computer and software for the duration of course*
- Coffee, Tea & Delicious Lunch*
- WiFi Access*
- Autodesk Certified Instructor
- Internationally recognized Autodesk Authorized Training Certificate

* Pertains to in-class training only
** In-class training typically occurs over a 3 day period, customised training may differ

Course Content

BUILDING INFORMATION MODELLING
- Building Information Modeling for Structural Engineering
- About Bidirectional Associativity

VIEWING THE STRUCTURAL MODEL
- View Properties
- Explore and Create Views
- Controlling Object Visibility
- View Templates
- Guidelines for Controlling Object Visibility
- View Range and Plan Region
- Working with Elevation and Section Views
- Controlling Visibility of Elevation and Section Tags
- Working with 3D Views
- Navigating Through a 3D View
- About Cameras
- Creating and Modifying Camera Views
- Changing Material Properties
- Guidelines for Working with 3D Views

CREATING STRUCTURAL COLUMNS AND WALLS
- Working with Structural Columns
- Loading Structural Columns
- Creating Structural Column Types
- Structural Column Tools and Options
- Creating Openings in Structural Columns
- Working with Structural Walls
- Structural Wall Type Parameters
- Structural Wall Instance Parameters
- Creating Wall Openings

REVIT STRUCTURE BASICS
- Exploring the User Interface
- The Ribbon Framework
- Working with Structural Elements and Families
Course Content

STARTING A NEW PROJECT
• Starting a Project
• Creating Project Templates
• Set Up a Project and Transfer Project Standards
• Adding and Modifying Levels
• About Levels
• Creating and Modifying Grids

CREATING FRAMES
• Adding Floor Framing
• About Beams
• Beam Properties
• Adding Openings in Beams
• Working with Beams and Beam Systems
• Beam System Properties
• Methods of Creating Sloped Beams
• Process of Creating a 3D Beam System
• Working with Structural Steel Frames
• About Structural Steel Frames
• Setting Steel Frame Symbols in a Plan View
• Process of Adding Bracing Members
• Editing Braces
• Working with Concrete Beams
• About Concrete Beams
• Options to Edit Concrete Beam Joins
• Vertical Justification of Beams
• Cutting beams with Ref plane

CREATING FLOORS AND ROOFS
• Adding Floors (Surface Bed)
• Process of Adding a Floor Element
• Creating Sloped Floors
• Creating Shaft Openings in Floors
• Creating Roofs and Adding Structural Framing
• Process of Sketching Roofs
• Create a Sloped Roof with Steel Framing
• Truss

CREATING FOUNDATIONS
• Adding Foundations
• Creating Stepped Walls and Foundations
• Create an Elevator Pit

STAIRS AND RAMPS
• Creating Stairs
• Create U-Shaped and Monolithic Stairs
• Creating Ramps
• Create a Ramp and Modify the Railing

EXTRAS
• Options Dialogue
• True North Setting
• Material Physical Properties
• Family Creation
• Structural Settings
• Adding Loads / using Robot Analysis Extension
• Revit Extensions / Robot Extensions / ASD – AutoCAD
• Assemblies

CREATING PLAN ANNOTATIONS AND SCHEDULES
• Adding Dimensions
• About Temporary Dimensions
• About Permanent Dimensions
• About Spot Dimension Symbols
• Working with Text and Tags
• About Text
• About Tags
• Setting Text Placement Parameters
• Add Column and Beam Tags
• Creating Legends
• Working with Schedules
• Beam Elevation Schedule
• Beam Annotations

CREATING DETAILING
• Adding Concrete Reinforcement
• Adding 3D Reinforcement
• Adding Steel Connections
• Working with Detail Views
• Process of Saving and Reusing a Detail View
• Add 2D Annotations to a Detail View
• Adding Detail Components
• Add Reinforcement Elements and Detail
• Components
• Working with Drafting Views
• Process of Creating and Reusing Drafting Views
• Create a Drafting View
• Working with CAD Details
• Options for Importing and Editing CAD Files
• Import and Edit DWG Details
• Importing RVT / Linking / Copy Monitor /Coordination Review

CREATING CONSTRUCTION DOCUMENTATION
• Working with Sheets and Titleblocks
• About Revision Tracking
• Process of Creating Sheets by Using Customized
• Titleblocks
• Creating Revision Clouds
• Guidelines for Working with Sheets and Titleblocks
• Create a Sheet by Using a Titleblock
• Printing Sheets
• Print Setup Settings
• Exporting Content to CAD Formats
• Settings for Exporting Content
• Process of Exporting Views to CAD Formats
• Guidelines for Exporting Content to CAD Formats
• Export Views
Course Registration Form

Please complete, sign and return together with proof of payment to mgfxsales@mgfx.co.za or fax 086 694 9404

Student Details

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Course Attending

Mark Course Type & Venue with X

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Micrographics SA (Pty) Ltd

Bank Details

| ABSA Newton Park | Branch: 632005 | Account: 4093 847 926 | Reference: invoice number |

Terms & Conditions:

1. Above Pricing Excludes VAT.
2. Students are to be at the training venue by 08h00 in preparation for a 08h30 start time.
3. Bookings can only be considered confirmation on receipt of payment.
4. Bookings may be changed up to three weeks in advance of the course. A fee of 20% will be levied to cover charges.
5. For full day courses, we will supply you with the relevant training material. A desktop computer to use for the training (where applicable) tea/coffee and a full lunch for full day InClass training hosted at the training center only. Catering is not included for OnSite training and laptop is available for hire at an additional cost if required.
6. Cancellation or rescheduling requests must be in writing and reach us at least 5 (five) working days prior to the course commencement date. Full course fees may be retained for no shows or requests within 5 working days prior to commencement.
7. Although we go to great lengths to ensure that all training proceeds as scheduled, we reserve the right to cancel or postpone dates if we require to do so and undertaken to inform clients in writing and telephonically of these changes.
8. We suggest clients wait until a week prior to course commencement that a course has been confirmed to go ahead as scheduled before booking flight and accommodation. We are NOT responsible for cost associated with cancellation of classes such as flight and accommodation for clients.
9. Full training fees will apply if the above condition is not complied with.

Signed & Accepted

Name

Location

Custom courses are available if the dates do not fall within your required date. Custom courses and dates are available to companies. Please contact us to find out more about our custom course options. Kindly note that the ETA for manuals once ordered is 3-5 days and 3-4 weeks if there is no stock at the time of placing the order, pricing is subject to change.

Dates indicated are subject to change. Above courses only presented if minimum requirements are met.