Revit Advanced
3 Day** Training Course

Overview
This course covers many of the advanced features of the entire Revit platform. Building Information Modeling (BIM) is an approach to the entire building life cycle. Autodesk® Revit® Architecture, Autodesk® Revit® MEP, and Autodesk® Revit® Structure are powerful BIM programs that support the ability to coordinate, update, and share design data with team members throughout the design, construction, and management phases of a building’s life. A key component in managing the BIM process is to establish a company foundation for different types of projects by creating standard templates and custom elements. Having this in place makes the process of any new project flow smoothly and efficiently.

The objective of the Autodesk Revit Collaboration Tools training guide is to enable students who have a basic knowledge of Autodesk Revit to increase their productivity while working with other people on a team, either in the same firm or other firms, and while working with Autodesk Revit files or other CAD files.

Prerequisites
• It is recommended that delegates are Microsoft Windows proficient.
• Students should be comfortable with the fundamentals of the Autodesk® Revit® software as taught in the Autodesk Revit Architecture Essentials knowledge.

Software
• Autodesk Revit

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

CONSIDERING OPTIONS AND ALTERNATIVES
• Design option terminology and workflows
• Utilising design option sets
• Considerations when using design options
• Design sets and incorporating design options

CONSTRUCTION SEQUENCING (PHASING)
• Project phasing, properties and creation
• Phase filters and graphic overrides
• Combining phases, infill and the demolition of elements
Course Content

PROJECT SETUP AND MANAGING COORDINATES
• Explore the different approaches to starting a project
• Understand how and why we sanitise CAD files prior to use in Revit
• Look at how we establish building models and site models
• Define and manage real-world or defined coordinates

ENERGY ANALYSIS OF A REVIT MODEL
• Understand the terminology of Energy Simulation
• Learn best practice tips on model creation for energy analysis
• Explore the simplicity of concept mass simulation
• Explore the potential of analysis using detailed material composition

PLACING STRUCTURAL ELEMENTS
• The placement of:
  • Columns, Beams and Bracing members
  • Foundations, Strip footings, Slabs, Slab Edges, Piers and Pilasters
  • Beam and Truss Systems
  • Basic modification to the above members
  • The creation of framing elevations
  • Placement and modification of beam systems

CREATING 2D CONTENT PART ONE
• 2D Content Creation
• Detailing to Replace or Enhance? A Library of Shapes
• Profile Templates
• Content Standards and Naming Conventions

NESTING ELEMENTS TO CREATE COMPLEX FAMILIES
• Understand generic library elements
• Follow the 10 steps to family creation
• Positioning and locking a sub-element
• Nesting parameters

CREATING 2D CONTENT PART TWO
• Important Terminology
• Line Weight
• Nesting Principles
• Sanitising CAD Data
• Using CAD data within Revit

PARAMETERS AND FORMULAE
• Understanding
• Parameters
• Working with Formulae Correct
• Formula Syntax

PREPARING THE ANALYTICAL MODEL
• Analytical v Physical model
• View, adjust and manage analytical alignment
• Nodes and hosted nodes
• Auto-detection and projection
• Consistency and member support checks
Course Content

**CREATING PARAMETRIC TRUSSES**
- Loading and inserting structural trusses
- Modifying profiles and properties
- Add basic supports
- The family editor
- Build a parametric truss

**LOADS AND ANALYSIS TOOLS**
- The type and placement of loads:
  - Point, Line
  - Area, Hosted
- Representation of the load types
- Load cases, natures and combinations
- Boundary conditions
- Links to structural analysis tools

**WORKING WITH PARAMETRICS**
- Understanding the terminology of parameters
- Exploring the different types and functions of parameters
- Understanding work planes, reference planes, reference lines and reference points
- How parameters are created and applied

**PLACING REINFORCEMENT**
- Valid rebar hosts and reinforcing parts
- Reinforcement and cover settings and rules
- Rebar shape codes and sketching bespoke shapes
- Area, path and fabric reinforcement
- Partitioning, numbering and scheduling
Course Registration Form

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

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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 3 (five) working days prior to the course commencement date. Full course fees may be retained for no shows or requests within 3 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 undertake 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

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Autodesk Gold Partner

Autodesk Authorized Training Center