

Autodesk Revit Essentials training course

Course Description

Teaches building information modelling and parametric design, analysis and documentation using Revit® Suite software. It is suitable for users of all versions of Revit: *Revit Architecture*, *Revit Structure* and *Revit MEP*.

Course duration: 3 days
Courseware provided: Autodesk Official Training Courseware

The first two days of the course cover:

- The fundamental features of Revit.
- Using the 3D parametric design tools to create and analyze a project.
- Construction documentation and design visualization.

The final day then focuses on techniques specific to the version of Revit you use (Architecture, Structure or MEP).

The course offers both imperial and metric hands-on exercises representing real-world structural design scenarios.

Course Objectives

To teach the concepts of building information modelling and introduce the tools for parametric design, analysis and documentation using Revit, including:

- The benefits of building information modelling.
- The fundamental features of Revit.
- The parametric 3D design tools for creating and analyzing projects.
- The automated tools for documenting projects.
- Developing a level of comfort and confidence with Revit through hands-on experience.

Who Should Attend

New users of any Revit product: Architecture, Structure or MEP.

Prerequisites

Delegate should have knowledge of 2D drawing techniques in CAD application such as AutoCAD.

Armada
6 West Court
Saxon Business Park
Stoke Prior
Bromsgrove
Worcs.
B60 4AD
www.armada.co.uk
training@armada.co.uk



Course Outline

Day 1 (all delegates)	Day 2 (all delegates)	Day 3 (Revit Struc. users)	Day 3 (Revit Arch. users)	Day 3 (Revit MEP users)
<p>Building Information Modelling</p> <ul style="list-style-type: none"> • Building Information Modelling <p>Revit Basics</p> <ul style="list-style-type: none"> • Exploring the User Interface • Working with Revit Elements and Families <p>Viewing the Structural Model</p> <ul style="list-style-type: none"> • Working with Views • Controlling Object Visibility • Working with Elevation and Section Views • Working with 3D Views <p>Starting a New Project</p> <ul style="list-style-type: none"> • Setting Up a Project • Setting Up View Templates • Defining Discipline Settings • Importing Typical DWG Details • Linking a Revit Model • Coordinating Linked Projects • Adding and Modifying Levels • Creating and Modifying Grids 	<p>Detailing and Drafting</p> <ul style="list-style-type: none"> • Creating Callout Views • Working with Text and Tags • Working with Detail Views • Working with Drafting Views • Working with CAD Details <p>Annotations and Schedules</p> <ul style="list-style-type: none"> • Adding Dimensions • Working with Text and Tags • Creating Legends • Working with Schedules <p>Construction Documentation</p> <ul style="list-style-type: none"> • Working with Sheets and Title blocks • Printing Sheets • Exporting Content to CAD Formats 	<p>Structural Columns and Walls</p> <ul style="list-style-type: none"> • Working with Structural Columns • Working with Structural Walls <p>Frames</p> <ul style="list-style-type: none"> • Adding Floor Framing • Working with Beams and Beam Systems • Working with Structural Steel Frames • Working with Structural Concrete Beams <p>Floors and Roofs</p> <ul style="list-style-type: none"> • Adding Floors • Creating Roofs and Adding Structural Framing <p>Creating Foundations</p> <ul style="list-style-type: none"> • Adding Foundations <p>Stairs and Ramps</p> <ul style="list-style-type: none"> • Creating Stairs • Creating Ramps 	<p>The Basics of the Building Model</p> <ul style="list-style-type: none"> • Adding and Modifying Walls • Working with Compound and Vertically Compound Walls • Using Editing Commands • Working with Doors • Adding and Modifying Windows <p>Loading Additional Building Components</p> <ul style="list-style-type: none"> • Adding and Modifying Component Families <p>Viewing the Building Model</p> <ul style="list-style-type: none"> • Managing Views • Controlling Object Visibility • Working with Section and Elevation Views • Creating and Modifying 3D Views <p>Using Dimensions and Constraints</p> <ul style="list-style-type: none"> • Working with Dimensions • Applying and Removing Constraints <p>Developing the Building Model</p> <ul style="list-style-type: none"> • Creating and Modifying Floors • Adding and Modifying Ceilings • Adding and Modifying Roofs • Creating Curtain Walls • Adding Stairs and Railings 	<p>Defining Volumes</p> <ul style="list-style-type: none"> • Representing Volumes • Creating Zones • Building Performance Analysis <p>Heating and Cooling Load Calculations</p> <ul style="list-style-type: none"> • Defining Heat and Cooling Information • Calculating Heating and Cooling Loads <p>HVAC Systems</p> <ul style="list-style-type: none"> • Creating an HVAC System • Generating Layouts <p>Piping Systems</p> <ul style="list-style-type: none"> • Creating System Piping <p>Plumbing Systems</p> <ul style="list-style-type: none"> • Creating Plumbing Systems <p>Fire Protection Systems</p> <ul style="list-style-type: none"> • Creating Fire Protection Systems <p>Electrical Systems</p> <ul style="list-style-type: none"> • Creating Electrical Circuits • Generating Wires

Please note: Course topics may be modified by the instructor based upon the knowledge and skill level of the course participants.

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