

Autodesk Revit Architecture

Learning Essentials 2 Training Course



Note – Some module numbers are deliberately not used.

Module 01 Considering Options and Alternatives

This module is presented as a lecture followed by an exercise, it provides an insight into working with Design Options in Revit.

- Design option terminology and workflows
- Utilising design option sets
- Considerations when using design options
- Design sets and incorporating design options

Exercise providing a practical example on the use and set-up of design options.

Module 02 Construction Sequencing (Phasing)

This module introduces the concept of construction sequencing, more commonly referred to as Phasing. It looks at the various stages and how these are used to visually portray each one.

- Project phasing, properties and creation
- Phase filters and graphic overrides
- Combining phases, infill and the demolition of elements

Exercise providing a practical example on utilising project phases, filters and the demolish tool.

Module 03 Project Set-up

This module guides users through the early stages of project set-up, exploring the different approaches which may be applicable to the unique combination of supplied data and scope of work.

- 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

Exercise focussing on the linking of two Revit files, a building and a site model, and the definition of a shared coordinate system between the two.

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Module 05 Model Development Methodology

- Is BIM just about 3D?
- Information timeline and overload
- How a project develops from a base template
- The complexity of components
- Controlling graphical display

Exercises for this module explore the two different approaches to energy analysis, starting with an early stage conceptual model and then looking at a more developed building model with system family composition, data-rich materials, door and window components and room data applied.

Module 07 Working with Other Disciplines

- Linking Revit models for reference
- Shared Coordinates
- Model transmittal preparation

Exercise on linking a Revit model to the site model, shared coordinates and model transmittal.

Module 08 Preparing the Plot

- Discuss the Building Pad tool
- Split Surface vs. Subregion- Which do I use?
- Building footprints
- Retaining walls
- Gardens and paths

Exercise on project orientation, managing the toposurface with graded regions, split surfaces and subregions, and defining gardens and pathways.

Module 09 Working with Slabs

- Adding slabs
- Bespoke system families
- Adding slopes to slabs
- Slope defining lines
- Slope arrows
- Modify sub-elements
- Adding points and split lines
- Pavements and patios

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Exercise on placing slobs, defining their structural composition and modifying their alignment and surfaces.

Module 10 Kerbs and Profiles

Applying kerbs using the sweep tool
Loading library profiles
Creating in-place profiles

Exercise on using the sweep tools to place kerbs and creating in-place profiles.

Module 11 Adding Site Components

Placing stairs and ramps
Adding benches, bins, bus shelters and bollards
Outside lighting
Creating bespoke components

Exercise explores the library content, placing components and creating bespoke elements.

Module 12 Remodelling the Site

Adding /removing triangulation points
Adjusting heights of triangulation points
Cut and fill calculations

Exercise on working with contour points to adjust topography and size cut and fill calculations.

Module 13 Contextual Massing

Geometry formation tools
In -Place Mass forms
Placing mass forms on the site

Exercise on creating and placing simple mass forms.

Module 14 Scheduling Elements

Component Schedules
Material Take-off establish quantities

Exercise on creating a schedule for planting and a material take-off for individual materials.

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Module 15 Hatching Regions

- Applying surface patterns and Filters
- Filled regions
- Room and Area Tools
- Area plans
- Colour schemes and legends

Exercise exploring the merits of the above workflows, their positives and their negatives.

Module 18 Rendering

- Autodesk libraries
- Applying materials and textures
- Developing 30 views with the Camera
- Rendering views
- Create a Walkthrough
- Export the video

Exercise on working with the Render tools, creating a perspective view, walkthroughs and exporting to video.

Module 19 Introduction to the Principles of Family Editing

- The basic process
- 10 stages for trouble-free family creation

Exercise on defining a fully parametric planter component.