

Revit BIM Training Course -75 hours

ESSENTIAL MODULE

Unit 1:

- Introduction to BIM methodology
- Understanding the User Interface: using basic drawing and editing commands.
- Contextual drawing exercise

Unit 2:

- Creating 'Toposurfaces': importing files and raster images from AutoCAD.
- Creating walls, inserting openings in walls and setting temporary and permanent dimensions.
- Contextual drawing exercise

Unit 3:

- Designing windows and architectural walls with the use of customised stratigraphy applied to the geometry of walls
- Contextual drawing exercise

Unit 4:

- Create and modify horizontal elements: loft-flooring, slanting and flat ceilings, false ceilings.
- Contextual drawing exercise

Unit 5:

- Creating stairs: inserting 'in-cast' and 'pre-cast'.
- The creating of new stair types, sketching place boundaries
- Designing railings
- Contextual drawing exercise

Unit 6:

- Drawing a 3D building and inserting mass elements.
- Setting the Reference points of a project
- Coordinating with linked models
- Contextual drawing exercises

Unit 7:

- Creating families: Adding, editing and creating from scratch
- Contextual drawing exercises

Unit 8:

- Creating new plan views: perspectives that include explode, cross- sectional and isometric sectioning
- Using dynamic detailed elements
- Contextual drawing exercises

Unit 9:

- Exporting data to a table and personalising tables and schedules
- Inserting areas of colour and pattern
- Organising design environments data
- Contextual drawing exercises

Unit 10:

- Creating and modifying title blocks and 2D families. Inserting annotation, symbols and arrows
- The layout of a project, printing and exporting to AutoCAD
- Contextual exercise

Unit 11:

- Rendering of internal and external areas. Applying material textures
- Creating an animation and applying a solar study to model
- Contextual drawing exercise

PROFESSIONAL MODULE

Unit 1:

- Exploring the user interface: positioning project files, libraries and using the snap tool
- Settings: project units, temporary measurements and adjusting the level of detail.
- Model lines: lines, arcs, circles, rectangles, polygons, chain options.
- Editing tools, copy, offset, move, mirror, and trim and split.
- Using temporary dimensions to draw lines and set permanent dimensions. Drawing and editing the position of lines in relation to the object
- Sketch exercise with model lines.

Unit 2

- Building Maker tools: creating roofs, walls, floors
- Splitting 'Toposurfaces,' merging and creating sub-regions
- Creating 'Toposurfaces' and inserting into drawing with direct 'place points'
- Importing contour data from AutoCAD
- Dividing surfaces, creating Sub-regions
- Creating platforms and adding site components such as parking, plants and entourage

Unit 3

- Creating new View points
- Floor-plans which include floors and ceilings as well as a site plan
- Visibility and perspectives: 3D views, cross- section. Graphic display to define architectural detail

Unit 4

- Conceptual design environment
- Labeling of areas within design, definition of space using colour schemes
- Subdivision of space in an environment

Unit 5

- Estimating Project Timeline: Project scheduling and calculating values for schedules.
- Creating schedules for walls, flooring and ceilings

- Creating colour schemes with 'Colour Fill Legend'
- Replacing graphic elements
- Using DB links for external exports

Unit 6

- Personalising Graphic Display; creating personalised measurements
- Inserting annotation boxes
- Creating and inserting tables

Unit 7

- Designing layout of tables in project view
- Scaling dynamic lists and importing Raster images into a table

Unit 8

- Referencing dimensions: assigning text labels to measurements
- Creating and testing parameters

Unit 9

- Controlling visibility and sections/array
- Creating 'Nested Families' with interchangeable components
- Controlling levels of detail and determining 'cuttable' and 'non-cuttable' families

Unit 10

- Creating different types of Catalogs, assigning these to a Family
- Adding generic annotation

Unit 11

- Creating a Detail Component Family: import a detail from AutoCAD to create a block in dwg format
- Adding Detail components to the 2D plan view of a Family of elements such as a door, windows and furniture

Unit 12

- Methodology of working with Project Phasing
- Temporary project phases: schedule phases, phase filters and demolition

Unit 13

- Transferring Project Standards System families from a project to another file
- Purging 'un-used families' and 'family types'
- Creating your personal templates
- Creating a group of elements

BUSINESS ENGLISH MODULE

Unit one: Telephone English

A range of practical activities including: identifying yourself/ making excuses/ dealing with communication problems/ making and confirming arrangements/changing an arrangement (politeness strategies)/Appropriate hesitation devices. Additional work on listening comprehension, restatement and confirmation.

Unit two: Emails

Workshop designed to help participants identify recommended strategy in writing business emails. Students will focus on writing polite informal emails as well as more formal English emails for business purposes. Goal is that participants will be able to produce sufficient emails and email responses in less than 8 minutes. Additional work on sentence structure, modal verbs and specific vocab for email.

Unit three and four: Meetings

Professional introductions and cross-cultural exchange. In the **first session**, students will be asked to consider cross cultural exchange in business context. Here students will begin to focus on appropriate business English for differing cultural contexts. Language/vocabulary and discussions to take place to reinforce appropriate language. In the **second session**, language required for negotiations/agreeing/disagreeing/clarifying/interrupting to be explored in these sessions. End goal will be for students to participate in a workshop "The Sun God Jinti" in which participants have to manage a 'relocation project', organising and negotiating their way through a variety of stages in small groups.

Unit five: Presentations

Introduction to business presentations. Structure and organisation of presentations. Useful vocabulary and expressions for professional and informal presentations. Practice with the classical model (Introduction/Main Body/Conclusion) and the FAB technique: (Feature/Advantage/Benefit). Students will be working towards the goal of making a presentation (using powerpoint) in English. Presentation sessions will be focused on passive and active sentences, reporting of data (numeric, etc). Students will start by making personalised presentations and move towards more formal, structured presentations to be delivered at course end.

Unit six: Document Management

Unit seven: Practical, Business and social purposes

In this session, students will explore appropriate language for practical business travel purposes. Arranging schedules and appointments, making travel arrangements, overcoming problems and obstacles. A range of informal and formal English with listening comprehension activities plus modelling of certain situations. Language will be focused on convincing, negotiating, and on the incorporation of idiomatic expressions.

This session also looks at common vocabulary and expressions for *small talk* in business situations with added focus on offering praise, complaints, asking for permission and asking for advice. To be linked back with cultural exchange session.

