

KOENIG SOLUTIONS • COURSE OUTLINE

Building Information Modeling (BIM) Concepts & Revit Architecture

Learn BIM concepts and Revit Architecture, from modeling and documentation to collaboration, rendering and project management.

7

MODULES

56

TOPICS

COURSE OVERVIEW

This course provides a complete understanding of Building Information Modeling (BIM) concepts along with practical implementation using Autodesk Revit Architecture. Participants will gain knowledge of BIM fundamentals, its role in Industry 4.0 and digital transformation in the construction industry, and practical skills in Revit for architectural modeling, documentation, collaboration, and visualization.

WHO THIS COURSE IS FOR

Architecture and Civil Engineering students

Construction professionals and project managers

BIM coordinators and modelers

Architects, engineers, and consultants adopting BIM workflows

Professionals seeking to upgrade from 2D CAD to BIM-based processes

PREREQUISITES

- Basic knowledge of construction/architectural drawings
- Familiarity with CAD software (AutoCAD preferred)
- Fundamental understanding of building design concepts

LEARNING OBJECTIVES

- Understand the role of BIM in Industry 4.0 and digital construction
- Learn BIM dimensions, maturity levels, lifecycle, and LOD standards
- Gain proficiency in Revit Architecture for modeling, detailing, and documentation
- Apply collaboration strategies using Common Data Environment (CDE)
- Develop skills for rendering, scheduling, and managing BIM-based projects

7 Modules, 56 Topics

01

BIM Concepts

TOPICS

- Digital Transformation in the Construction Industry
- Concept of Industry 4.0 and its Impact
- Introduction to BIM
- Benefits of BIM
- Components of BIM
- BIM Dimensions
- BIM Maturity Levels
- Benefits of Implementing BIM Levels and Dimensions
- Lifecycle of BIM
- Level of Development (LOD)
- Benefits of Adopting LOD in BIM-Based Projects
- BIM Terminology
- Common Data Environment (CDE)
- Document Naming Strategy

02

Revit Architecture Fundamentals

TOPICS

- Introduction to Revit
- **Revit File Types:** Project, Project Templates, Families
- Project Units
- **Levels:** Adding, Modifying, Constraining & Level Head Creation
- Wall Creation, Layers & Materials
- Curtain Walls, Grids & Mullions
- Editing Curtain Walls
- Wall Sweeps, Reveals & Openings
- Split Walls

03

Revit Architectural Components

TOPICS

- 3D Interface Navigation
- Doors & Windows Placement
- Floors & Ceilings
- Roof by Footprint & Extrusion
- Visibility/Graphics & View Range
- Overlays & Grids (Horizontal/Vertical)
- Columns & Footings
- Ramp, Staircase & Railing

04

Detailing & Documentation

TOPICS

Dimensions & Text · Detailing of Components · Tags & Keynotes · Sectional Views · Color Schema · Door & Window Legends

05

Families & Parametric Modelling

TOPICS

- Loadable vs In-Place Components
- Family Creation & Editing
- **Solid Forms:** Extrude, Blend, Sweep, Revolve, Swept Blend
- Void Forms & Applications
- Parametric Modelling with Constraints
- Massing & Conceptual Design
- X-Ray, Adding Profiles & Edges

06

Site & Visualization Tools

TOPICS

Site & Site Settings · Section Box · Subdivide & Building Pad (Excavation) · Sun Path & Solar Study · Linking Files into Revit Projects · Rendering (Interior & Exterior)

07

Project Documentation & Collaboration

TOPICS

Sheet Creation & View Management in Sheets · Scheduling & Quantities · Collaboration Tools: Copy/Monitor · View Templates & WorkSets Creation · Material Overrides · Hide in View Options

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

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