

COURSE SYLLABUS · 2026

Advance BIM Fundamental Professional Course

A 4-month, 120+ hour professional program for civil engineers, architects and AEC professionals — covering BIM fundamentals, AutoCAD, Revit (Architecture, Structure & MEP), ReCap, Navisworks, Dynamo and BIM Collaborate Pro, delivered through one-to-one live online training.

4 Months

DURATION

120+ Hours

TRAINING CONTENT

Online

ONE-TO-ONE LIVE

100%

PLACEMENT SUPPORT

COURSE OVERVIEW

Advance BIM Fundamental Professional Course

This specialised course is designed for civil engineers, architects, working professionals and master's students looking to advance their Building Information Modeling (BIM) fundamentals while integrating advanced tools for real-world applications. Delivered by Castallio, this program provides in-depth training on BIM methodologies, industry standards, collaboration techniques and digital project execution tailored to the AEC (Architecture, Engineering and Construction) industry.



Live One-to-One Training

Personalized learning experience with expert trainers.



Hands-on Training

With 6+ industry-leading BIM software applications.



Live Project Training

Learn by doing, on real project workflows.



Career Advancement

Enhance your BIM skills to stay ahead in the industry.

"If you consistently practice daily and complete project work on time, we guarantee 100% placement to help you secure a job in the AEC industry."

SOFTWARE COVERED IN THE COURSE



This course is ideal for civil engineers, architects and AEC professionals who want to enhance their digital construction expertise and work efficiently on BIM-based projects. Whether you're a working professional or a master's student, this program will equip you with the technical skills, practical knowledge and industry exposure needed to excel in modern digital construction environments.

CURRICULUM · MODULE-WISE BREAKDOWN

Course Modules

Industry focus: civil engineers, architects, working professionals & master's students in the AEC industry – 12 modules, 120+ hours of live one-to-one training.

01

Introduction to BIM & Industry Standards

2 HR

M-1.1 Understanding BIM Fundamentals

60 Min

- Definition and evolution of Building Information Modeling (BIM)
- Differences between 2D CAD, 3D Modeling, and BIM
- Real-world applications of BIM in architecture, engineering, and construction (AEC)

M-1.2 BIM Standards, BEP & LOD

60 Min

- BIM Levels (0, 1, 2, and 3) – from traditional workflows to cloud-based collaboration
- Levels of Development (LOD 100–500) – understanding the accuracy and detail of BIM models
- International BIM Standards (ISO 19650, PAS 1192)
- Key components of a BIM Execution Plan (BEP)

02

Introduction of AutoCAD and Best Practices

9 HR

M-2.1 AutoCAD User Interface, Unit & Options

180 Min

- Drawing Object, Unit, Dimension
- Modify tab, Layers Properties
- Hatching and gradient, File management
- Text technique, Blocks and settings

M-2.2 Plan Creation, Drafting Standards & Practices

180 Min

- Floor plan, elevations, and sections – Architectural, structural
- Vaastu detailing
- Equipment's and component placing
- Create practice floor plans, detailing of sheets
- Create schedule table and quantity table

M-2.3 External References, Collaboration Layouts, Printing & Plotting

180 Min

- Working with Xrefs and linked drawings
- Importing & exporting files (DWG, PDF, and DWF)
- Collaboration and project sharing
- Creating layouts and viewports
- Plot styles, scale settings, and sheet setup
- Printing, exporting, and PDF creation

03

Revit User Interface Overview, Tools & Techniques

3 HR

M-3.1 Revit User Interface, Unit & Options Settings

180 Min

- Introduction to Revit & BIM
- Application Menu, Quick Access Toolbar, Ribbon & Tabs, Panel, View Control Bar & Status, Navigation Bar
- Option settings, file types, template types, add libraries, save types
- Revit project setup & configuration
- Revit tools and techniques

04

Revit Structural Project Setup & Model Configuration

17 HR

M-4.1 Revit Structural Template Creation, Insert CAD and Other

120 Min

- Revit templates, unit, insert CAD, linking CAD & models for coordination
- Setting up levels, grids, and reference planes

M-4.2 Structural Elements & Modeling

240 Min

- Revit modeling – footing, column, beam, slab, structural wall, staircase and ramp

M-4.3 Reinforcement & Rebar Modeling

180 Min

- Rebaring of all components, rebar tools & reinforcement settings
- Rebar cover, hooks & bar bending schedules
- Structural detailing & concrete reinforcement modeling
- Understanding rebar shapes & standard codes
- Managing rebar numbering & reinforcement categories

M-4.4 Documentation, Detailing & Scheduling & BOQ (Bill of Quantities)

180 Min

- Creating plans, sections, and elevations
- Annotations, dimensions, and detail callouts
- Generating structural shop drawings
- Material takeoffs for concrete, steel, and rebar
- Creating quantity schedules & cost estimation

M-4.5 Work Sets, VG Settings, Collaboration, Sheets, Printing, Exporting & Live Project Practices

300 Min

- Linking multiple models (architectural, structural)
- Using Revit work sets
- VG settings and more options
- Sheet setup & title blocks
- Exporting to AutoCAD, IFC, and PDF
- Printing & plotting
- Live project practices and doubts clearance

05

Revit Architectural Project Setup & Model Configuration

28 HR

M-5.1 Revit Architectural Project Setup, Linking Model, Modify Settings

180 Min

- Revit templates, unit, insert CAD, linking CAD & models for coordination, modify settings
- Setting up levels, grids, and reference/elevation planes
- Create wall, window, door, component placing, ceiling

M-5.2 Advanced Roof, Floor & Stairs, Railings & Ramps Customization

300 Min

- Curtain wall systems, custom mullions, sloped & complex roofs with fascia & gutters
- Advanced floor systems & floor finishes
- Creating double-skin façades & custom panels
- Custom stair design (floating, spiral, U-shape)
- Railings with custom baluster design, advanced ramp modeling & accessibility compliance

M-5.3 Revit Model Panel, Room & Tags, Openings and Work Plane

120 Min

- Text model, line and group, room placing and room tags, separator
- Area tags, openings by shaft and face
- Work plane, reference lines, datum panel, viewer & dormer

M-5.4 Massing and Site, Conceptual Mass and Model Site

120 Min

- Massing & site tools overview
- Site modeling — helps create topography, roads, parking, and landscaping
- Creating conceptual masses, in-place massing and using sketch-based mass forms
- Model site in Revit — topography, adding site components and building pad & site modifications

M-5.5 VG Graphics Setting, Filters, View Templates, Parameters & Additional Settings

180 Min

- VG graphics settings, model categories and import categories
- Creating plan & elevation views, adjusting crop regions and view range in plan views
- Creating a new filter, applying filters in view templates and colour-coding elements
- Line types & cut profiles and adjusting object styles for different view scales
- Common snaps, 3D snapping and global & shared parameters
- Text, dimensions, arrowheads, & line weights

M-5.6 Work Sets, Manage Link and Synchronizing

120 Min

- Detects inconsistencies between models (architecture vs. structure) and used for clash detection & quality control
- Creating & managing work sets, synchronizing with central model to update changes
- Work-sharing display modes for identifying ownership issues
- Managing links & projects, and managing & reloading links for updated design changes

M-5.7 Annotate Tab — All Panels, Documentation, Detailing & Scheduling & BOQ

240 Min

- Dimensions panel, text panel, tags panel, detail panel, revision, keynote & symbols panel
- Shop drawings and detailing, cost estimate, BOQ and schedule
- Callout, section, 3D view detailing, drafting, plan view legends, scope box

M-5.8 Sheet Detailing, Shop Drawings, Rendering & Walkthrough in Revit

180 Min

- Structural & architectural shop drawings and exporting & printing sheets
- Steps for high-quality rendering images, enhanced with Enscape/Lumion
- Walkthrough animation in Revit, adjust frame rate & speed and export as video (MP4, AVI, or MOV)

M-5.9 Structural and Architectural Live Project Practices

240 Min

- Real-world project execution using Revit, covering structural and architectural workflow practices

06

Revit MEP Project Setup & Model Configuration

7 HR

M-6.1 Overview of MEP Workflows in Revit – Plumbing

120 Min

- Datum panel link, all model and settings
- Plumbing system modeling, water supply & drainage
- Fixture connections (sinks, toilets, showers)
- Pipe slope adjustments & flow calculations
- Pump connections & water tank integration

M-6.2 Mechanical (HVAC) System Design

120 Min

- Creating duct layouts (rectangular, round, oval)
- Air terminals & equipment placement (diffusers, grilles, fans)
- Setting airflow rates & pressure drops
- Duct fittings & accessories (dampers, insulation, etc.)
- Chilled water & hot water systems
- Pipe routing & flow calculations

M-6.3 Shop Drawings, Sheet Detailing & BOQ in Revit MEP

180 Min

- MEP shop drawings, sheet detailing & documentation
- Bill of Quantities (BOQ) & cost estimation, and creating MEP schedules

07

Enscape – Rendering & Walkthrough

4 HR

M-7.1 User Interface & Navigation in Enscape

240 Min

- Adding the Enscape plugin in Revit and installation
- Setting up materials & textures
- Lighting & environment adjustments
- Rendering high-resolution images (PNG, JPG, EXR)
- Walkthrough & animation in Enscape
- Exporting walkthrough videos

08

ReCap – Scan to BIM

10 HR

M-8.1 Introduction to Autodesk ReCap, User Interface

180 Min

- Overview of laser scanning & point cloud technology
- Role of Scan-to-BIM in construction & renovation projects, and user interface
- Importing laser scans into ReCap, understanding scan coordinates & alignment
- Running clash detection between point cloud & BIM models

M-8.2 Integrating ReCap with Revit (Scan to BIM)

120 Min

- Converting point clouds into BIM models
- Running clash detection between point cloud & BIM models
- Converting scan data into DWG or IFC formats for further analysis
- Identifying discrepancies between existing & new construction

M-8.3 Final Model & Practice Session

300 Min

- Architectural, structural, and MEP disciplines with live practice sessions

09

Navisworks Manage — Coordination & Clash Detection

9 HR

M-9.1 Introduction to Navisworks Manage, User Interface

180 Min

- User interface, option setting, app menu
- Managing multiple file formats (.NWC, .NWD, .IFC, .DWG)
- Selection tools — selecting objects, properties, and search sets
- Viewpoint tab (navigation & visualization)
- Review tab (annotations & markups)

M-9.2 Clash Detective Tab (Clash Detection & Resolution)

120 Min

- Running clash tests — detect conflicts between disciplines (MEP, structure, architecture)
- Clash report generation — documenting detected clashes
- Assigning clash status — new, active, resolved, or approved

M-9.3 Quantification Tab (5D Cost Estimation)

120 Min

- Item catalogs & cost data integration
- Model-based takeoff — extracting quantities from BIM models
- BOQ generation — exporting quantity reports

10

Dynamo for Revit — Scripting & Automation in BIM

6 HR

M-10.1 Introduction to Dynamo and User Interface

360 Min

- Installing & accessing Dynamo in Revit
- Dynamo interface overview (nodes, graphs, workspace)
- Automating Revit workflows

11

BIM Collaborate Pro & BIM 360 – Cloud-Based BIM Coordination

7 HR

M-11.1 Introduction to BIM Collaborate Pro

420 Min

- Understanding the Autodesk Construction Cloud (ACC) ecosystem
- Project setup & cloud worksharing, and worksharing in Revit (syncing, relinquishing, collaboration)
- Model coordination & clash detection
- Coordination meetings & model aggregation
- Document management & version control
- Collaboration & communication tools

12

Live Work: Final Model, Portfolio & Interview Preparation

15 HR

M-12.1 Final Model Practices – Real-World BIM Workflow

900 Min

- Creating a complete BIM project (architecture, structure, MEP), clash detection and collaboration
- Shop drawings, BOQ & documentation, and rendering & walkthrough presentation
- Portfolio development & project showcase
- Job interview preparation & placement assistance
- Resume building for the BIM & AEC industry
- 100% placement assistance for successful candidates

INDUSTRY INSIGHT

According to NITI Aayog, adopting BIM can cut construction costs by up to 20% – one reason it's fast becoming standard practice on major AEC projects.

WHY CHOOSE CASTALLIO

1

Why Join Castallio?

You train under working BIM professionals, not just instructors – so you learn the pipeline as studios actually run it.

2

Why Flexible Learning?

Live online and offline batches mean you can upgrade your BIM skills without pausing your current job or studies.

3

Why Placement Support Matters?

A certificate alone doesn't get you hired – real introductions to studios, agencies and recruiters do.

4

Why the Placement Guarantee?

Consistent daily practice builds a portfolio worth hiring for – we back that with 100% placement assistance.

REGISTRATION

Enrollment Procedure

Advance BIM Fundamental Professional Course — five simple steps from registration to your first live project.

1

Fill Out the Registration Form

Start by submitting the course registration form online.

2

Provide Basic Details

Name, email, contact number, qualification and experience.

3

Receive Your Letter of Admission

Confirmation of your seat in the upcoming batch.

4

Choose Payment Method

Online transfer, UPI, or credit/debit card.

5

Start Learning & Project Work

Begin the live one-to-one training and live projects.

INDUSTRY INSIGHT

India's BIM market is growing at a CAGR of nearly 17%, with Asia-Pacific now the fastest-growing region for BIM adoption worldwide.

FULL BIM MASTERY PROGRAM

₹ 74,999 /-

4-Month Program

EMI plans available · Limited seats — enroll now

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“Secure your spot today and become a BIM expert.”