

# CAD/BIM Certificate Program (Self-Paced)

Build expertise in both AutoCAD and Revit to excel in drafting and building information modeling (BIM). This program prepares you for a dynamic career in the construction and design industries through hands-on, real-world projects.

Group classes in Live Online and onsite training is available for this course. For more information, email [corporate@nobledesktop.com](mailto:corporate@nobledesktop.com) or visit: <https://www.nobledesktop.com/certificates/cad-bim-certificate-program>



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## Course Outline

This package includes these courses

- Introduction to AutoCAD (Self-Paced) (30 Hours)
- Intermediate AutoCAD (Self-Paced) (30 Hours)
- AutoCAD Construction Documents I (Self-Paced) (30 Hours)
- AutoCAD Construction Documents II (Self-Paced) (30 Hours)
- Introduction to Revit (Self-Paced) (30 Hours)
- Intermediate Revit (Self-Paced) (30 Hours)
- BIM Construction Documents I (Self-Paced) (30 Hours)
- BIM Construction Documents II (Self-Paced) (30 Hours)

## Introduction to AutoCAD (Self-Paced)

We start at the very beginning, using AutoCAD to draw drafting symbols, kitchen and bath fixtures, and then create a floor plan. We assemble everything into one sheet file. Learn about Drawing on Layers, Adding Text, Dimensions & Plotting.

- Create drafting symbols, kitchen and bath fixtures, a floor plan and integrate all information into one deliverable sheet file.
- Distinguish the differences required to generate drawings for use as annotation and real-world model components.
- Create and insert blocks and externally reference files and determine the appropriate times to apply those skill sets.
- Master file management, drafting on layers, integrating drawing component files and plotting while creating on the class residential project.

## Intermediate AutoCAD (Self-Paced)

Use AutoCAD to draw an abbreviated set of construction documents for a residential project: floor plan, roof plan, foundation plan, electrical plan & building elevations. Create, insert and link drawings. Learn the best workflow.

- Create an abbreviated set of construction documents including floor plan, foundation plan, electrical plan and building elevations for a small residential project.
- Create and insert blocks, externally reference files and determine the appropriate times to apply those skill sets to optimize project efficiency.
- Demonstrate layer and file management, external file referencing, use of model/layout environments and user coordinate systems.
- Apply intermediate-level skills including layer management, user coordinate system development, creating sheet layout environments and plotting.

## AutoCAD Construction Documents I (Self-Paced)

Develop titleblock drawings from scratch. Then we draw a floor plan, multi-scale enlarged plans, roof plan and building elevations for a large one-story residence which will be continued in CAD 302.

- Create titleblock and titleblock/drawing label components for a professional office to facilitate development of deliverable sheet files.
- Create floor plan, enlarged plan, roof plan and building elevation of a moderately complex residential project. Includes the development of floor plan, roof plan and elevation notes.
- Successfully integrate referenced files to create construction documents. Demonstrate layer and file management, use of model/layout environments and multi-scale drawing presentation.
- Organize deliverable sheet set to conform to the National CAD Standards.
- Apply intermediate-level skills to create sheet layout environments and plotting.

## AutoCAD Construction Documents II (Self-Paced)

Create custom titleblock drawings from scratch. Then draft a floor plan, multi-scale enlarged plans, roof plan, and building elevations for a large one-story residence—continued in CAD 302.

- Create building elevations, sections, and wall sections; revise detail drawings; draft a metes and bounds (civil) drawing; and compile deliverable sheet files for a moderately complex residential project
- Develop a title sheet and incorporate appropriate general notes and keynote legends
- Integrate external reference files to produce complete, coordinated construction documents
- Demonstrate effective layer and file management, utilize model/layout environments, and apply multi-scale drawing presentation techniques
- Apply intermediate to advanced skills to create professional sheet layouts and prepare files for plotting
- Organize the deliverable sheet set in accordance with National CAD Standards

## Introduction to Revit (Self-Paced)

This beginner-level Revit course offers an in-depth exploration of the interconnections within a Building Information Model using Revit's architectural toolset. The curriculum supports development of a fully integrated 3D model that concurrently produces coordinated 2D documentation—such as floor plans, elevations, and rendered perspectives—while drafting and designing. Instruction commences with a predefined template, proceeding through setup of floor plans and elevations, generation of 3D views, assembly of drawing sheets, and exportation of deliverables to PDF. Comprehensive project files and step-by-step video tutorials facilitate each stage of the workflow.

- Describe Primary Revit Concepts and how they relate to Building Information Modeling (BIM).
- Explore the Revit User-Interface.
- Design a 3D building model to explain how information is inter-related.
- Determine the appropriate workflow to complete tasks within Revit.

- Develop a project which includes floors, walls, ceilings, stairs, curtain walls, and roof design to strengthen 3D modeling and 2D documentation skills.
- Create presentation level architectural graphics.
- Catalog building information using schedules.

If you are interested in Revit Certification (also referred to as BIM Certification), we recommend completing the [Revit Certification Course series](#) to be fully prepared for the Autodesk Certified User Exam for Revit.

## Intermediate Revit (Self-Paced)

This intermediate-level online BIM course delves into advanced project-documentation techniques within Revit Architecture. Building upon an existing model, the curriculum covers scheduling components, family-editor workflows for 2D and 3D content creation, graphic refinement, and assembly of a concise construction-document set. Through hands-on exercises, the course demonstrates how to transform a conceptual model into an interoperable set of construction drawings.

- Integrate DWG Files to create Revit details.
- Tag elements for cost estimation and material take-offs.
- Explore the capabilities of design options, and how to present different options.
- Create 3D parametric families.
- Build customized door, material, and room schedules that can be used for construction take-offs.
- Explore BIM project Management techniques to keep models efficient and user-friendly.

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## BIM Construction Documents I (Self-Paced)

This online Revit course is the first of two Construction Document courses and focuses on Revit Architecture tools. You will model an existing single-story commercial building, using imported AutoCAD drawings as a base, and develop a site model. You will continue developing your Revit skills by modeling a significant two-story expansion of the initial building. This project scenario reflects the type of work commonly handled by AEC teams using Revit in professional settings.

- Apply BIM modeling tools to create an architectural model that includes existing conditions, partial demolition, and new construction
- Build project topography using external files and develop a site plan incorporating hardscape and landscaping
- Graphically represent project phasing, clearly distinguishing existing construction, demolition, and new construction
- Create renderings suitable for both presentation and documentation

## BIM Construction Documents II (Self-Paced)

You will create construction documents for the commercial building and site created in BIM 301. You will create the sheet drawings and will add keynotes, detail drawings and schedules.

- Prepare a set of architectural construction documents incorporating the site and building models created in BIM 301.
- Develop progress sets of construction documents, reflecting 30/60/90/100 percent deliverable submittals.
- Produce plan, section, and elevation views of the project for sheet layout.
- Keynote elements of the project model. Develop schedules and a limited number of architectural details extracted from the BIM model.