

# CAD Certificate Program (Self-Paced)

Learn 2D drafting skills with AutoCAD and enhance your design capabilities with specialized tools like Revit and SketchUp. This program prepares you for a successful career in construction design, with real-world applications and project-based learning.

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-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)
- CAD Detailing (Self-Paced) (20 Hours)
- CAD and Project Management (Self-Paced) (20 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)**

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 building elevations, building sections, wall sections; modify detail drawings; create metes and bounds (Civil) drawing; create relevant deliverable sheet files for a moderately complex residential project. Includes the development of title sheet and appropriate general and keynote legends.
- Successfully integrate referenced files to create construction documents. Demonstrate layer and file management, use of model/layout environments and multi-scale drawing presentations.
- Apply intermediate/advanced-level skills to create sheet layout environments and plotting.
- Organize deliverable sheet set to conform to the National CAD Standards.

## **CAD Detailing (Self-Paced)**

Create detail drawings. Learn the two dominant CAD standards AEC firms use – making detail drawings from scratch and by referencing and clipping information from other drawings. Learn drawing standards and about organizing your details.

- Create detail drawings pertinent to the course project.
- Create relevant deliverable sheet files.
- Integrate referenced files to create details for construction documents.
- Demonstrate layer and file management, use of model/layout environments and multi-scale drawing presentations.
- Apply intermediate/advanced-level skills to create sheet layout environments and plotting.

## **CAD and Project Management (Self-Paced)**

Gain the skills needed to manage CAD projects and optimize office workflows. This course covers project management techniques, AutoCAD organization, and adapting inherited projects to meet industry standards.

- Demonstrate understanding of the technical and managerial skills required to succeed as a CAD and Project Manager.
- Organize the AutoCAD User Interface to optimize productivity and standards for an office.
- Use office standard file naming and file organization.

- Master an understanding of the National CAD Standards.
- Convert “an inherited CAD project” into a format that supports the National CAD Standards and Office CAD Standards.