COURSE SYLLABUS

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.

For more information, visit
https://www.creativelive.com/learning-path/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
- 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

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