

OAD: Associate of Applied Science in Drafting & Design (Self-Paced)

Earn an Occupational Associate Degree in drafting and design. Build job-ready CAD and BIM skills in AutoCAD and Revit through more than 1,100 hours of project-based training, mentoring, and proprietary workbooks — all online with expert live support.

Group classes in Live Online and onsite training is available for this course. For more information, email corporate@nobledesktop.com or visit: <https://www.nobledesktop.com/certificates/drafting-and-design-associate-degree>



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Course Outline

This package includes these courses

- Blueprint Reading Course - Residential Construction (Self-Paced) (10 Hours)
- Blueprint Reading Course - Commercial Construction (Self-Paced) (20 Hours)
- Introduction to Residential Design (Self-Paced) (0 hours)
- Introduction to AutoCAD (Self-Paced) (30 Hours)
- Intro to AutoCAD Lab (Self-Paced) (0 hours)
- Intermediate AutoCAD (Self-Paced) (30 Hours)
- Intermediate AutoCAD Lab (Self-Paced) (0 hours)
- AutoCAD Construction Documents I (Self-Paced) (30 Hours)
- AutoCAD Construction Documents II (Self-Paced) (30 Hours)
- AutoCAD Construction Documents III (Self-Paced) (0 hours)
- CAD Detailing (Self-Paced) (20 Hours)
- Introduction to Commercial Design (Self-Paced) (0 hours)
- Introduction to Revit (Self-Paced) (30 Hours)
- Introduction to Revit Lab (Self-Paced) (0 hours)
- Intermediate Revit (Self-Paced) (30 Hours)
- Intermediate Revit Lab (Self-Paced) (0 hours)
- BIM Construction Documents I (Self-Paced) (30 Hours)
- BIM Construction Documents II (Self-Paced) (30 Hours)
- BIM Construction Documents III (Self-Paced) (30 Hours)
- BIM Detailing (Self-Paced) (20 Hours)
- Introduction to Photoshop (Self-Paced) (30 Hours)
- Introduction to Photoshop Lab (Self-Paced) (0 hours)

- Intermediate Photoshop (Self-Paced) (30 Hours)
- Introduction to Illustrator (Self-Paced) (30 Hours)
- Introduction to Illustrator Lab (Self-Paced) (0 hours)
- Intermediate Illustrator (Self-Paced) (30 Hours)
- Introduction to InDesign (Self-Paced) (30 Hours)
- Introduction to InDesign Lab (Self-Paced) (0 hours)
- Intermediate InDesign (Self-Paced) (30 Hours)
- Revit & Twinmotion Interior Rendering Course (Self-Paced) (30 Hours)
- Revit & Twinmotion Exterior Rendering Course (Self-Paced) (30 Hours)
- Communication and Connection (Self-Paced) (10 Hours)
- Self-Management Skills (Self-Paced) (10 Hours)
- Teamwork, Collaboration & Leadership (Self-Paced) (10 Hours)
- OAD Capstone Project (Self-Paced) (0 hours)
- OAD Portfolio (Self-Paced) (0 hours)
- College Algebra (Self-Paced) (0 hours)
- College Geometry (Self-Paced) (0 hours)
- Calculus 1 (Self-Paced) (0 hours)
- English Composition (Self-Paced) (0 hours)
- Technical Writing (Self-Paced) (0 hours)
- Intro to Sociology (Self-Paced) (0 hours)
- Communications (Self-Paced) (0 hours)
- Art History (Self-Paced) (0 hours)

Blueprint Reading Course - Residential Construction (Self-Paced)

Learn how to read and interpret residential construction blueprints from a licensed architect. This online course covers drawing types, scale, and the relationships between drawings using a real-world project as reference.

- Understand the inter-relationship between drawings included in a full set of construction documents.
- Analyze how scale is presented and applied across different drawing types.
- Evaluate the similarities and consistencies found across blueprint sets submitted for building permits.
- Recognize the importance of consistent information presentation across all types of construction documents.

Blueprint Reading Course - Commercial Construction (Self-Paced)

This is an online blueprint reading course for commercial projects. Learn from a licensed architect how to read blueprint drawings for a mixed-use commercial project that includes hotel, retail, and parking.

- Demonstrate an understanding of the inter-relationship between the drawings included in a set of construction documents (blueprints) for a mixed-use commercial project.
- Analyze different drawings and see how information is referenced throughout a set of construction documents.
- Evaluate the similarities between all sets of construction documents submitted for building permits.
- Recognize the need for consistency in presenting information in all types of construction documents.
- Gain experience understanding how 3D model presentations within a set of construction documents make it easier to understand the project.

Introduction to Residential Design (Self-Paced)

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

Intro to AutoCAD Lab (Self-Paced)

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

Intermediate AutoCAD Lab (Self-Paced)

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)

AutoCAD Construction Documents II continues the construction document set begun in CAD 301. Develop 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.

- 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

AutoCAD Construction Documents III (Self-Paced)

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

Introduction to Commercial Design (Self-Paced)

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. 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.

- 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 interrelated
- Determine the appropriate workflow to complete tasks within Revit
- Develop a project that 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

Introduction to Revit Lab (Self-Paced)

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. 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.

- 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

Intermediate Revit Lab (Self-Paced)

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.

BIM Construction Documents III (Self-Paced)

This course examines how Revit users design 3D models that simultaneously document the project and generate 2D architectural drawings. This class consists of two main projects; we begin by exploring the Primary Revit Concepts by creating a small residential building, and then build upon and expand our skills by creating a 3D model of a commercial building, and presenting the model using floor plans, elevations, and 3D perspective views.

- Describe Primary Revit Concepts and how they relate to Building Information Modeling (BIM)

- Design a 3D building model to explain how information is interrelated
- Develop a project that includes floors, walls, ceilings, stairs, curtain walls, and roof design to strengthen 3D modeling and 2D documentation skills
- Catalog building information using schedules
- Explore the Revit User-Interface
- Determine the appropriate workflow to complete tasks within Revit
- Create presentation-level architectural graphics

BIM Detailing (Self-Paced)

Master the art of creating detailed construction drawings that ensure structural integrity, safety, and design clarity. This course focuses on developing your skills in Revit to create comprehensive building system details and manage them according to industry standards.

- Create detail drawings of building systems which illustrate structural integrity and sound building construction practices
- Create and integrate detail drawings which limit or prevent accidental injury or death among users of the buildings
- Prepare detail drawings illustrating construction systems, products, and finishes
- Develop details and manage the detail information to conform with project-based lineweight and National CAD/BIM standards. Abbreviated set of construction documents

Introduction to Photoshop (Self-Paced)

Learn the Adobe Photoshop user interface and the specific tools and features that make Photoshop valuable. Learn major strategies to adjust, correct and supplement photos and graphic projects.

- Recognize the basic tools of Photoshop and appropriately utilize these tools for the desired adjustments and corrections
- Carry out techniques to adjust, enhance, supplement, and compose files necessary to produce marketing materials
- Implement proper understanding and organization of files and layers within the layers panel and Photoshop interface
- Appropriately adjust and export images with variations in image file-type, dimension and color

Introduction to Photoshop Lab (Self-Paced)

Intermediate Photoshop (Self-Paced)

This Photoshop class reinforces techniques and expands on the Introduction to Photoshop class. You will learn important strategies on how to work successfully, how to plan, design, collaborate and export a project.

- Reinforce the basic tools of Adobe Photoshop and appropriately use these tools for the desired adjustments and corrections
- Carry out techniques to adjust, enhance, supplement, and compose files necessary to produce marketing materials
- Incorporate client's determined goals, audience, and branding
- Assess and adjust image strategy based on determined marketing and design goals

Introduction to Illustrator (Self-Paced)

Learn Adobe Illustrator, the industry-standard professional vector drawing program. Gain real-world, practical experience using Illustrator to produce vector art for both print and web design.

- Recognize the basic tools of Illustrator and appropriately use these tools for the desired adjustments and corrections

- Carry out techniques to adjust, enhance, supplement, and compose files necessary to produce marketing materials
- Implement proper understanding and organization of files and layers within the layers panel and Illustrator interface
- Appropriately adjust and export images with variations in image file-type, dimension and color

Introduction to Illustrator Lab (Self-Paced)

Intermediate Illustrator (Self-Paced)

This class reinforces basic strategies of Introduction to Adobe Illustrator and introduces intermediate techniques for graphic design. Learn additional tools and methods to craft a series of graphic marketing materials.

- Recognize the basic tools of Illustrator and appropriately utilize these tools for the desired adjustments and corrections
- Carry out techniques to adjust, enhance, supplement, and compose files necessary to produce marketing materials
- Implement proper understanding and organization of files and layers within the layers panel and Illustrator interface
- Appropriately adjust and export images with variations in image file-type, dimension and color

Introduction to InDesign (Self-Paced)

Learn the Adobe InDesign user interface and the specific tools and features that make InDesign valuable. Learn basic strategies to design, supplement, and export graphic materials.

- Recognize the basic tools of InDesign and appropriately use the tools for the desired adjustments and corrections
- Carry out techniques to adjust, enhance, supplement, and compose files necessary to produce marketing materials
- Implement proper understanding and organization of files and layers within the layers panel and InDesign interface
- Appropriately adjust and export images with variations in image file-type, dimension, and color

Introduction to InDesign Lab (Self-Paced)

Intermediate InDesign (Self-Paced)

This class reinforces basic strategies of Introduction to Adobe InDesign and introduces intermediate techniques for graphic design. Learn additional tools and methods to craft a series of graphic marketing materials.

- Recognize the basic tools of InDesign and appropriately utilize these tools for the desired adjustments and corrections
- Carry out techniques to adjust, enhance, supplement, and compose files necessary to produce marketing materials
- Implement proper understanding and organization of files and layers within the layers panel and InDesign interface
- Appropriately adjust and export images with variations in image file-type, dimension, and color

Revit & Twinmotion Interior Rendering Course (Self-Paced)

This course provides a comprehensive introduction to real-time rendering with Revit and Twinmotion, focusing on creating high-quality interior visualizations. You will gain hands-on experience with essential tools and techniques to bring their designs to life with stunning detail and interactivity.

- Navigate and master the Twinmotion interface for seamless project creation
- Export and link Revit models to Twinmotion while maintaining real-time synchronization
- Apply materials, lighting, and furniture to enhance the realism of interior spaces
- Configure natural and artificial lighting to create mood and visual storytelling

- Create multiple camera views and optimize scene composition for impactful renderings
- Develop a fully rendered interior scene ready for your portfolio or client presentations

Revit & Twinmotion Exterior Rendering Course (Self-Paced)

Bring your Revit models into Twinmotion and transform them into immersive, real-time exterior visualizations. This course covers model linking, material refinement, realistic lighting, and adding context with landscaping and people to build complete scenes. You'll produce high-quality renderings and animations that clearly communicate design intent for client presentations, finishing with a polished exterior project that demonstrates professional visualization skills using current real-time tools.

- Move confidently through the Twinmotion 2025 interface and use essential tools to set up and manage projects efficiently
- Import and export Revit and SketchUp models with real-time synchronization for smooth workflow updates
- Apply and fine-tune exterior materials, lighting, and landscaping to create more realistic scenes
- Adjust natural and artificial lighting to shape mood and strengthen visual impact
- Set up and manage camera views to improve composition and presentation quality
- Create and export dynamic animations that clearly showcase your building designs

Communication and Connection (Self-Paced)

Learn to build connections, make requests, and engage in conflict management and negotiation. Build your Emotional Intelligence. Communicate and collaborate with Diversity, Equity and Inclusion (DEI) in mind. Learn the art of public speaking and body language.

- How to build connections
- Make requests
- Engage in conflict management and negotiation
- How to build your Emotional Intelligence
- Collaboration with Diversity, Equity and Inclusion
- The art of public speaking and body language

Self-Management Skills (Self-Paced)

Learn to evaluate your time, improve efficiency, prioritize what matters, learn how to establish a positive frame of mind and set goals in your career and life. In addition, you will learn a framework to make decisions and avoid common pitfalls. Lastly, you will learn how you can prioritize your ethics and integrity to build trust.

- Evaluate your time
- Improve efficiency
- Prioritize what matters
- Establish a positive frame of mind and set career and life goals
- Form a framework to make decisions
- Prioritize ethics and integrity to build trust

Teamwork, Collaboration & Leadership (Self-Paced)

Teamwork, Collaboration & Leadership will help you learn the essential skills which are often overlooked and will improve your

ability to solve problems, thrive on teams, and lead others.

- Effectively conduct meetings
- Build collaboration
- Thrive as a team and make decisions as a group
- Encourage teams to buy into an idea or plan
- Move an idea forward in a group setting
- Inspire others through leadership

OAD Capstone Project (Self-Paced)

OAD Portfolio (Self-Paced)

College Algebra (Self-Paced)

College Geometry (Self-Paced)

Calculus 1 (Self-Paced)

English Composition (Self-Paced)

Technical Writing (Self-Paced)

Intro to Sociology (Self-Paced)

Communications (Self-Paced)

Art History (Self-Paced)