COURSE SYLLABUS

BIM Certificate Program (Self-Paced)

Gain expertise in Building Information Modeling (BIM) with Revit Architecture to create 3D models for commercial building projects. This hands-on program teaches you the technical skills and workflows for BIM while preparing you for a successful career.

Group classes (Live Online) and onsite training are available for this course. For more information, email corporate@nobledesktop.com or visit: https://www.nobledesktop.com/certificates/bim-certificate-program



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Course Outline

This package includes these courses

- 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)
- BIM Construction Documents III (Self-Paced) (30 Hours)
- BIM Detailing (Self-Paced) (20 Hours)
- BIM Certificate Elective Courses (Self-Paced) (80 Hours)
- BIM Capstone Project (Self-Paced) (60 Hours)

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

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

BIM Construction Documents I (Self-Paced)

This online Revit course is the first of three 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 Construction Documents I. 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 Construction Documents I.
- 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)

Build on an existing commercial building model to complete a coordinated Revit drawing set. Develop plan annotations, material and graphic legends, elevations, wall sections, enlarged plans and interior elevations.

Create gross and rentable area plans, use phasing for a future tenant layout, and complete revisions and quality-control checks before exporting the drawing set.

- Complete floor plan documentation, graphic symbols and material legends.
- Create elevations, wall sections, enlarged plans and interior elevations.
- Document gross and rentable building areas.
- Use phasing to develop a future tenant layout.
- Review revisions and quality control, then export the drawing set.

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, and prepare an abbreviated set of construction documents

BIM Certificate Elective Courses (Self-Paced)

Select 60-80 clock hours of elective courses to complement your BIM Certificate Program training. You can specialize in Revit MEP, Revit Structure, or SketchUp Pro.

BIM Capstone Project (Self-Paced)

Throughout this BIM Certificate Program, you will complete a final capstone project that will serve as a comprehensive showcase of your skills and knowledge:

- Apply your understanding of Building Information Modeling (BIM) by creating a fully integrated BIM model for a real-world construction project of your choice.
- Use industry-standard software such as Revit, to model, visualize, and analyze building systems, ensuring accuracy and efficiency in your design.
- Document your process, from initial design to the final BIM model, and present your project in a professional construction document that is ready to share in your portfolio.
- Work on your capstone both in and outside of class, taking advantage of scheduled mentoring sessions to discuss your progress, address challenges, and receive feedback from your instructor.