BIM Certificate Program

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 in Live Online and onsite training is available for this course. For more information, email partnerships@vdci.edu or visit: https://vdci.edu/certificates/bim-certificate-program

admissions@vdci.edu • (619) 758-9300

Course Outline

This package includes these courses

- Introduction to Revit (30 Hours)
- Intermediate Revit (30 Hours)
- BIM Construction Documents I (30 Hours)
- BIM Construction Documents II (30 Hours)
- BIM Construction Documents III (30 Hours)
- BIM Detailing (20 Hours)
- BIM Certificate Elective Courses (80 Hours)
- Capstone Project (60 Hours)

Introduction to Revit

In this online Revit course, you will learn how information is interrelated throughout the Revit (BIM) model using the Revit Architecture tools. You will design 3D building models that simultaneously document the project in schedules and in 2D construction documents.

What You Will Learn

- 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 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.

Course Information

In this Revit course, you will create a Building Information Model starting from a pre-made template, create floor plans, elevations and 3D presentation views, place views on sheets, and print drawing sheets to PDF. You will be provided both source Revit files, which you will use to start your project, as well as videos which will guide you through the learning process. There will be quizzes relating to your project as well as discussion forums in which you will be participating. You will receive a Revit Course Certificate upon completion.

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

In this online BIM class, you will learn more advanced methods to document a project in Revit Architecture. Topics include scheduling building components, using the family editor to create 2D and 3D components, refining graphics, and creating an abbreviated set of construction documents.

What You Will Learn

- 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.

Course Information

In this online intermediate BIM class, students explore advanced methods of documenting a building project in Revit Architecture by revising and continuing to develop an existing Revit model, exploring design options, creating custom schedules, and learning the skills required to create custom Revit families. By the end of this course, students will be able to turn a conceptual Revit model into integrated and interoperable construction document set.

You will be provided both source Revit files, which you will use to start your project, as well as videos which will guide you through the learning process. There will be quizzes relating to your project as well as discussion forums in which you will be participating. You will receive a Revit Course Certificate upon completion.

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.

BIM Construction Documents I

This online Revit course is the first of two Construction Document courses, using the Revit Architecture tools. You will model an existing single story commercial building (importing AutoCAD drawings as a base) and also create a site model. You will continue learning Revit when you create the model for a significant two-story expansion to that first building model. This project

scenario is typical of projects currently being handled by AEC teams who use Revit in their offices.

- Apply BIM modeling tools to create an architectural model, including existing building, partial demolition and a new construction.
- Build topography for a project using existing external files and develop a site plan, including hardscape and landscaping.
- Graphically differentiate phasing of a project from existing construction through new construction.
- Produce renderings suitable for presentation and documentation.

BIM Construction Documents II

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

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 inter-related.
- 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

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 confirm with project-based lineweight and National CAD/BIM standards. abbreviated set of construction documents.

BIM Certificate Elective Courses

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.

Capstone Project

The VDCI Capstone Project course empowers students to apply their acquired skills in a real-world, project-based environment. Participants will complete a comprehensive design or construction project from concept to execution, showcasing their expertise in software like AutoCAD, Revit, or other industry-standard tools. This hands-on experience prepares students to excel in professional roles by demonstrating their ability to manage and deliver complex, detail-oriented projects.