COURSE SYLLABUS

Revit Structure Certification Course Online

Learn Revit Structure to create detailed 3D structural models and seamlessly integrate them into the BIM workflow. This course prepares you for the Autodesk Certified Professional in Revit for Structural Design and helps build a strong foundation in structural engineering design.

> 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/courses/revit-structure-certification-course

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Course Outline

This package includes these courses

- Intro to Revit Course Online (30 Hours)
- Intermediate Revit Course Online (30 Hours)
- Revit Structure I Course Online (20 Hours)
- Revit Structure II Course Online (30 Hours)
- Navisworks Course Online (30 Hours)

Intro to Revit Course Online

In this beginner-friendly Intro to Revit course, you'll dive into how Revit (BIM) links all your project information using the Revit Architecture tools. You'll learn how to design 3D models that automatically generate 2D architectural drawings, including floor plans, elevations, and 3D perspective views. Starting with a pre-made template, you'll build a Building Information Model, create floor plans and elevations, generate 3D views, place them on sheets, and print them to PDF.

- 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 Course Online

In this intermediate BIM class, you'll learn advanced Revit techniques for documenting projects, including scheduling components, creating 2D/3D families, refining graphics, and making a streamlined construction document set. You'll also build on an existing model, explore design options, create custom schedules, and develop custom Revit families. By the end, you'll turn a conceptual model into a complete, integrated construction document set.

- 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.

Revit Structure I Course Online

Revit Structure I is an introductory course for aspiring Structural Engineers, Architects, and design professionals looking to get started with structural modeling in Autodesk Revit Structure. You'll learn the basics through self-paced exercises, including creating structural models, working with families and templates, and modeling beams, columns, and foundations. The course follows a real-world four-story commercial project from start to finish, building core BIM skills and showing how structural models coordinate with other disciplines.

- Navigate and customize the Revit interface for structural design workflows.
- Create and modify structural elements such as beams, columns, and foundations.
- Develop structural floor plans, sections, and elevation views.
- Understand the fundamental principles of structural analysis within Revit.
- Utilize tools for reinforcement and detailing to prepare construction documents.
- Generate accurate schedules for structural components.

Revit Structure II Course Online

Revit Structure II is an intermediate course for professionals and students who already know the basics of Revit structural tools and want to go further. You'll continue developing the four-story commercial project from the previous Revit Structure I Course while learning advanced workflows for updating structural elements, adding annotations, creating framing elevations, setting up detail sheets, and producing a complete set of structural construction documents. By the end, you'll have a deeper understanding of Revit Structure's tools and workflows and the confidence to handle more complex structural projects.

- Explore advanced structural modeling techniques, including complex framing systems and truss modeling.
- Learn how to manage and analyze structural loads and forces within your Revit models.
- Enhance your understanding of construction documentation by creating detailed plans, sections, and schedules for structural systems.
- Optimize workflows for better collaboration with other disciplines, improving project efficiency.
- Finish developing and annotating a project from the very beginning and see its completion through all aspects of BIM modeling and drawing production.
- Gain an understanding of real-world practices for the effective integration of an interactive project with other disciplines.

Navisworks Course Online

Unlock the power of Navisworks, a key project review software in the AEC industries. This course gives you a solid foundation

in using Navisworks to integrate Revit, 3D AutoCAD, and other compatible software into a 3D model, helping you collaborate and manage projects effectively.

- Navigate the Navisworks interface to optimize your workflow.
- Apply workflow strategies to integrate various BIM models into clash detection analysis models.
- Combine and review 3D models from multiple software platforms.
- Detect and resolve potential clashes to improve project coordination.
- Use TimeLiner to simulate construction sequences and better manage schedules.
- Generate precise project reviews and share actionable insights with stakeholders.