COURSE SYLLABUS

Revit MEP Certification Course Online

Gain fundamental skills in Mechanical, Electrical, and Plumbing (MEP) systems design and integration with this self-paced certification bundle. It prepares students for the Autodesk Certified Professional in Revit for Mechanical Design exam while providing experience in building systems coordination.

> Group classes (Live Online) and onsite training are available for this course. For more information, email partnerships@vdci.edu or visit: https://vdci.edu/courses/revit-mep-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 Mechanical Course Online (30 Hours)
- Revit Plumbing Course Online (30 Hours)
- Revit Electrical Course Online (30 Hours)
- Navisworks Course Online (30 Hours)

Intro to Revit Course Online

In this beginner-friendly 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 Mechanical Course Online

This course focuses on using Revit MEP Mechanical to set up and manage mechanical systems within a building model. It begins with project setup, including linking architectural models, defining spaces, and setting up worksharing for team collaboration.

- Learn to set up and manage mechanical systems in Revit MEP, starting with project setup and worksharing.
- Create, align, and replicate mechanical systems like ducts, VAVs, and rooftop units for proper airflow.
- Configure mechanical equipment, such as exhaust systems and kitchen hoods, and refine duct connections.
- Practice linking architectural models, defining spaces, and coordinating mechanical systems across floors.
- Resolve system clashes and adjust ceiling plans, supply terminals, and return air systems.
- Tag mechanical elements, create schedules, and export detailed project sheets as PDFs for final submission.

Revit Plumbing Course Online

This MEP course focuses on using Revit for Plumbing, guiding students through the process of creating and managing plumbing systems within architectural models.

- Learn to create and manage plumbing systems in Revit by linking them to architectural models.
- Develop skills in adjusting pipe sizes, adding connectors, and refining system layouts for fixtures like water heaters.
- Work with practical systems like slope piping, sanitary systems, and vent systems throughout the course.
- Set up efficient piping layouts, determine water distribution points, and align systems for coordination.
- Create gas pipe networks, manage plumbing sheets, and apply consistent tags for clear documentation.
- Finalize projects by reviewing, exporting, and ensuring all systems are properly aligned and functional.

Revit Electrical Course Online

Advance your MEP career by mastering electrical system designs using Revit. This course provides the opportunity to tackle real-world projects, such as building a coordinated electrical model for a complex, multi-story school building. You will master essential Revit tools, covering everything from conduit systems and panel schedules to advanced visibility overrides and templates, enabling you to implement solutions.

- Create electrical system designs, including lighting fixtures, panels, and wiring devices within Revit's 3D environment.
- Address model conflicts and manage interdisciplinary workflows while placing components like light fixtures on architectural ceilings.
- Learn how Revit manages family parameters, constraints, and the setup required to create effective electrical schedules.

- Produce 2D .pdf plans that showcase your 3D model alongside schedule and project data, using Revit's Visibility Graphics, View Templates, and Annotation tools.

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.