COURSE SYLLABUS

Revit MEP Professional Bundle

Gain fundamental skills in Mechanical, Electrical, and Plumbing (MEP) systems design and integration with Revit MEP. This bundle prepares students for the Revit MEP Certified User Exam while providing hands-on experience in building systems coordination.

> Group classes in Live Online and onsite training is available for this course. For more information, email partnerships@vdci.edu or visit: https://vdci.nobledesktop.com/courses/revit-mep-professional-bundle

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Course Outline

This package includes these courses

- Introduction to Revit (30 Hours)
- Intermediate Revit (30 Hours)
- Revit Mechanical (30 Hours)
- Revit Plumbing (30 Hours)
- Introduction to Navisworks (30 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 considering the Revit Architecture Professional Bundle to be fully prepared for the Autodesk Certified User Exam.

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 more advanced methods of documenting a building project in Revit Architecture by revising and continue to develop an existing Revit model, exploring design options, creating custom schedules, and learn 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 considering the Revit Architecture Professional Bundle to be fully prepared for the Autodesk Certified User Exam.

Revit Mechanical

This MEP 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

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.

Introduction to Navisworks

Use Navisworks to integrate Revit, 3D AutoCAD and compatible programs into a 3D model to create clash detection between architectural, structural, MEP and fire-suppression systems.

- Explore the methodologies for integrating Revit, 3D AutoCAD and compatible software programs into a 3D model which can be used to create clash detection between various structural and MEP systems.
- Apply workflow strategies for efficient use of integrating various BIM models into clash detection analysis models.
- Create timeline animations representing 4D construction modeling and scheduling.
- Produce and resolve time-based clash detection reports which will minimize on-site construction change order requests.