



MARECHKAWICK POLYTECHNIC INSTITUTE

IN PARTNERSHIP WITH BG LATITUDE · NEW YORK CITY HEADQUARTERS

COURSE PROSPECTUS — FREE SAMPLE

REVIT MEP HVAC DUCT SYSTEMS: LAYOUT, AUTOMATIC SIZING, FIRE DAMPERS AND LOD 300 SUPPORTS

3

VIDEO LESSONS

14

CHECKPOINTS

56

QUESTIONS

\$50

TUITION

Most Revit tutorials show you a command. This course walks a complete HVAC duct system through a real commercial model — from the first air terminal to a sized, damped, supported, fabrication-ready system with cable tray coordinated above it. Examined as you go: study each segment, answer its checkpoint, advance. Unlimited attempts. The credential is recorded permanently and publicly verifiable at marechkawick.institute.



WHAT YOU WILL LEARN

THE COMPETENCY THIS COURSE BUILDS

- Set up an HVAC model in the MEP template and mechanical reflected ceiling plan
- Place supply and return air terminals at a specified elevation and read their symbols
- Create duct systems, generate automatic layouts, and judge them against routing constraints
- Keep supply and return at separate elevations and repair open connections
- Automatically size ductwork by velocity and read the tapering result
- Place fire dampers for fire containment and maintenance isolation
- Understand shear walls and the discipline of MEP coordination
- Convert design duct to LOD 300 fabrication parts and hang it from structure
- Route cable tray with a deliberate clearance buffer and resolve clashes

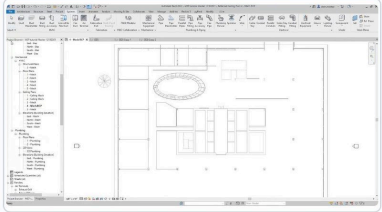
INSIDE THE COURSE

MODULE 1 • LESSON 1

Start in the MEP template

Use the correct workspace

- MEP template
- Mechanical RCP
- Reflected ceiling plan
- Terminal elevation: 13 ft



Project Browser: mechanical reflected ceiling plan

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MODULE 1 • LESSON 3

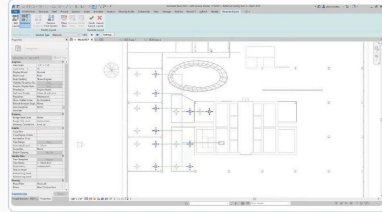
Generate Layout is a starting point

Review every route

Generate Layout proposes options.

Reject routes that penetrate the stairwell or conflict with important geometry.

Choose the best option, then edit it.



Automatic routing still requires design judgment

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MODULE 2 • LESSON 6

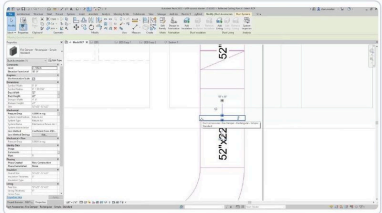
Fire dampers interrupt fire and smoke paths

Place a duct accessory

Systems → Duct Accessory

Fire Damper – Rectangular: Simple Standard

The demonstrated purpose is to help stop fire and smoke from spreading through the HVAC system.



The selected rectangular fire damper is visible in the duct run

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MODULE 3 • LESSON 7

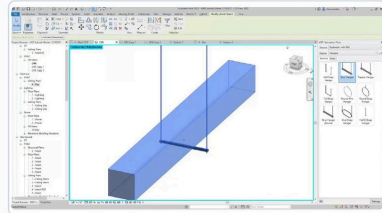
Design duct and fabrication duct behave differently

Test before trusting

On fabrication duct, the hanger snaps and adjusts.

On standard design duct, the same hanger does not properly recognize or support the segment.

Convert the duct first.



The comparison makes the fabrication requirement visible

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STUDY A SEGMENT. PROVE IT. ADVANCE.

Module 1 — Laying Out Supply and Return Duct Systems · 6 checkpoints

Templates and views · air terminals · mechanical equipment and routing constraints · creating systems and generating layouts · editing and cleanup · elevation separation · sections, elbow discipline and tagging.

Module 2 — Sizing the Ductwork and Placing Fire Dampers · 4 checkpoints

Preparation for automatic calculation · sizing by velocity · fire dampers for containment and maintenance isolation · shear walls and coordination discipline.

Module 3 — Fabrication Parts, Duct Supports and Cable Tray · 4 checkpoints

Fabrication services · Design to Fabrication and Optimize Length · strut hangers and why fabrication parts matter · cable tray and vertical coordination.

The examination is taken as you learn. Each segment ends in a checkpoint of 3–5 questions drawn only from that segment. Pass the checkpoint and the next segment unlocks. Attempts are unlimited and answer options reshuffle every attempt. Every answer traces to a timestamp in the source lessons.

Two credentials. Complete all modules and the Institute issues your **Certificate of Completion** as a formal letter. Pass the examination — every checkpoint at its mark — and the **Certificate of Specialization in Revit MEP HVAC Duct System Modeling** is granted by examination. Both are signed, recorded permanently, and publicly verifiable at the Institute's verification page by record number and QR code.

Included with enrollment: the three video lessons organized into segments, the written course, the Revit MEP lab file, fourteen checkpoints with unlimited attempts, and the certificate on passing. Tuition **\$50**, self-paced, through the Institute's purpose-built learning portal.

Enroll: marechkawick.institute — payment handled securely by Shopify at the BG Latitude register.