

# NETCO Training Programs Course Catalogue

The National Electrical Trade Council (NETCO) offers a comprehensive suite of training programs designed to elevate the skills, safety knowledge, and professional capabilities of electrical trade workers across Canada. From cutting-edge Virtual Reality simulations to self-paced online modules, in-person certification courses, and leadership development programs, NETCO's catalogue reflects a deep commitment to workforce excellence. Whether you are an apprentice just starting out or a seasoned journeyman looking to expand your credentials, there is a program here built for you.

IBEW · CECA

POWERED BY NETCO LMS

# What's Inside This Catalogue

NETCO's training offerings span multiple delivery formats and skill areas, ensuring that every learner — regardless of experience level or geographic location — can access high-quality professional development. This catalogue is organized into five major program families, each addressing a distinct area of need within the electrical trade.

|  |  |  |
|--|--|--|
| 01   | 02   | 03   |
| <hr/> <b>Virtual Reality Training (VET Series)</b>   | <hr/> <b>Specialty &amp; Certification Programs</b>  | <hr/> <b>Canadian Electrical Code Courses</b>  |
| Immersive VR-based courses covering residential electrical, conduit bending, hoisting & rigging, motor control, and instrumentation. Requires an Oculus headset. | Hands-on and hybrid programs including EVITP, Power Line Technician Drone Training, Solar PV Installation, and ARC Flash Safety.               | Self-paced online modules covering CEC navigation, the 2024 Code Update, and EVITP preparation — all available on the NETCO LMS. |
| 04   | 05   |  |
| <hr/> <b>BuildForce Leadership Programs</b>  | <hr/> <b>Question Banks &amp; Resources</b>  |  |
| PIN-based courses for supervisors, estimators, and those building respectful and inclusive workplace cultures in construction.                                   | CEC question banks for Years 1–5 and Red Seal Exam prep, plus downloadable course outlines and access to the NETCO Learning Management System. |  |

## Virtual Electrical Training Series

# NETCO Virtual Reality Training Courses

NETCO's Virtual Electrical Training (VET) Series represents the cutting edge of trades education. By pairing traditional classroom instruction with fully immersive Virtual Reality environments, these courses give learners a safe, repeatable space to practice real-world skills before stepping onto a live job site. Each VET course is built to reduce on-site errors, build confidence, and accelerate skill acquisition through experiential learning.

All VET courses require an **Oculus headset** and access to the **NETCO Learning Management System (LMS)**. Some courses additionally require a gaming PC. Learners should contact their IBEW training director or reach out to NETCO directly to confirm equipment availability and LMS access before enrolling.

4

### VR Course Modules

Currently available or coming soon in the VET series

7

### Conduit Bend Types

Covered in-depth across VET 2 lessons

12

### Instrumentation Labs

Immersive VR labs in the upcoming Introduction to Instrumentation course

3

### Days — Hoisting

Classroom plus VR curriculum for Hoisting, Rigging & Moving



Virtual Electrical Training · VET 1

# Residential Electrical

VET 1 introduces learners to the fundamentals of residential electrical installations using an immersive Virtual Reality environment. Rather than practicing on live circuits, students can make mistakes, repeat steps, and build muscle memory in a risk-free simulated setting. This approach is especially valuable for early-stage apprentices who need to internalize wiring sequences before encountering them on a real job site.

The course covers four core lessons, each progressively increasing in complexity. Students begin with basic single-pole switch installations and advance through multi-switch configurations, including three-way and four-location light control circuits, as well as GFCI installation — a critical safety component in any residential project.

## Lesson 1

Single-pole switch installation

## Lesson 2


Single-pole switch and switched receptacle installation

## Lesson 3

Two three-way switches controlling a light

## Lesson 4

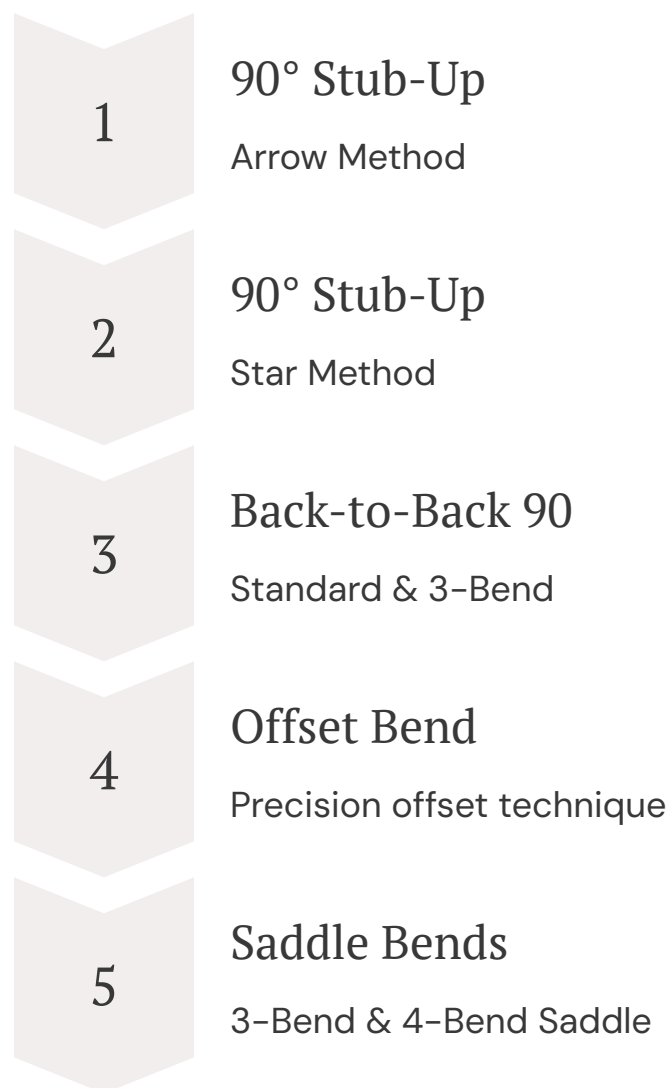
Controlling a light from three locations and installing a GFCI


 **Requirements:** Oculus Headset and access to the NETCO LMS. Contact your IBEW training director to confirm access before enrolling.

# Conduit Bending

VET 2 takes learners into one of the most technically demanding skill areas in the electrical trade: conduit bending. Mastering conduit bends requires both mathematical precision and physical technique, and the VR environment allows students to practice each type of bend repeatedly without wasting material or occupying a physical bending station. This course is ideal for apprentices who are approaching their conduit bending modules in classroom training and want a supplementary, hands-on practice environment.

The course is structured around seven distinct lessons, each dedicated to a specific bend type. Learners progress from foundational 90-degree stubs through increasingly complex multi-bend configurations, developing a complete toolkit of bending skills by the time they complete the module.



 **Requirements:** Oculus Headset and access to the NETCO LMS.



Virtual Reality · Hybrid Course

# Hoisting, Rigging and Moving

The Hoisting, Rigging and Moving program is a three-day hybrid course that combines traditional classroom curriculum with a Virtual Reality component, giving learners an immersive experience that goes well beyond what a textbook can offer. Students gain hands-on familiarity with loads, cranes, lifts, and rigging equipment in a controlled virtual environment, building comfort and confidence before they encounter these scenarios on a live job site.

This program places a strong emphasis on safety, covering the standards, protocols, and best practices that govern safe rigging and lifting operations in the electrical construction industry. Developed by **NORCAT Industries for NETCO**, the course draws on deep industry expertise and is tested via the NETCO LMS to ensure consistent evaluation standards across all participants.

## What You'll Learn

- Safe operation of cranes and hoisting equipment
- Rigging principles and load calculations
- Worksite safety protocols and regulations
- Immersive VR scenario practice

## Course Details

- Duration: 3 days
- Format: Classroom + Virtual Reality
- Developed by: NORCAT Industries for NETCO
- Testing: NETCO LMS
- Requirement: Oculus Headset and gaming PC



Virtual Reality · Hybrid Course

# Motor Control

The Motor Control course delivers a rich learning experience by pairing classroom instruction with seven immersive Virtual Reality labs, all developed by **NORCAT Industries for NETCO**. Motor control is a critical competency for construction and maintenance electricians working in industrial settings, and this program ensures learners develop both theoretical understanding and practical confidence in working with motor control systems.

The seven VR labs are designed to walk learners through progressively complex motor control scenarios, from basic starter circuits to more advanced control configurations. By experiencing these systems in a fully simulated environment, students can safely interact with equipment, test circuit logic, and build troubleshooting skills that translate directly to real-world industrial applications.

## Format

Classroom curriculum +  
7 immersive VR labs

## Developer

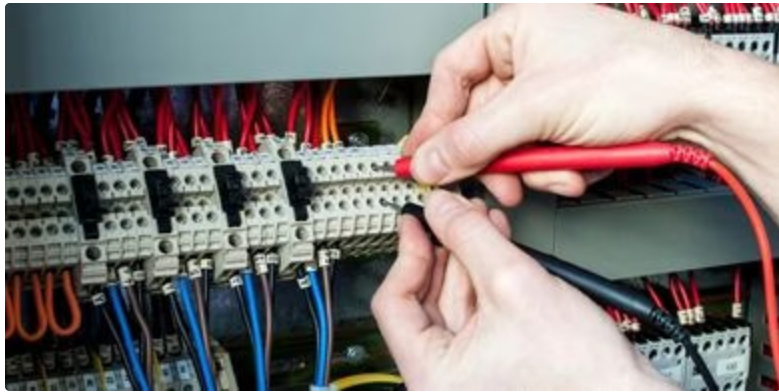
NORCAT Industries, built  
specifically for NETCO

## Supplement

Pairs with the Motor  
Controls Symbols Quiz  
on the NETCO LMS

## Requirements

Oculus Headset and  
gaming PC



Coming Soon · Virtual Reality

# Introduction to Instrumentation

NETCO's newest VR course is currently in development and will represent one of the most comprehensive immersive learning experiences in the VET series. The **Introduction to Instrumentation** course is specifically aligned with the **Level 3 Construction and Maintenance Electrician** curriculum for Ontario and is designed to be adaptable to all provinces across Canada. It bridges the gap between theoretical knowledge and real-world field application through a hybrid learning environment.

The course features **12 specialized Virtual Reality labs** paired with technical classroom training, giving learners unparalleled depth of exposure to industrial instrumentation concepts and practices. Testing is conducted via the NETCO LMS, ensuring standardized evaluation across all learners. Developed by **NORCAT Industries for NETCO**, this course is set to become an essential component of the modern electrician's training pathway.

## 12 VR Labs


Comprehensive immersive lab work covering core instrumentation topics aligned with Level 3 curriculum

## Provincial Adaptability

Designed for Ontario's CME curriculum with built-in flexibility to meet the needs of learners across all Canadian provinces

## Hybrid Delivery

Combines classroom technical instruction with Virtual Reality labs for a complete, multi-modal learning experience

 **Requirements:** Oculus Headset and gaming PC. Testing done via NETCO LMS. Stay tuned for the official release date.

## Other NETCO Programs

# Power Line Technician Drone Training

NETCO is proud to introduce a brand-new drone training course developed specifically for Power Line Technicians. Delivered in partnership with **Saskatchewan Polytechnic**, this three-day program combines classroom instruction with hands-on, practical flight training led by a **Transport Canada certified instructor**. Participants graduate with official drone pilot certification, a credential that is becoming increasingly valuable as the industry integrates unmanned aerial systems into everyday operations.

Designed exclusively for IBEW Power Line Technicians, this program builds real-world drone operation skills that support safer work practices, greater operational efficiency, and continued professional growth. As drone technology plays an expanding role in infrastructure inspection, emergency response, and line maintenance, this certification positions IBEW members at the forefront of an evolving trade landscape.

## Program Highlights

- Duration: 3 days
- Format: Classroom instruction + practical flight training
- Delivered in partnership with Saskatchewan Polytechnic
- Instructor: Transport Canada certified drone pilot
- Outcome: Official drone pilot certification
- Designed specifically for IBEW Power Line Technicians

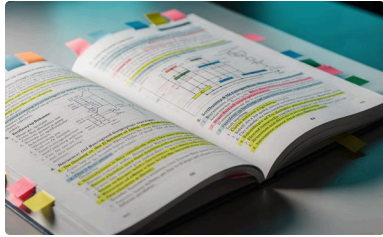
## Why Drone Skills Matter

Drone technology is reshaping how power line technicians inspect, monitor, and maintain electrical infrastructure. This certification ensures IBEW members lead the way.

## Canadian Electrical Code Programs

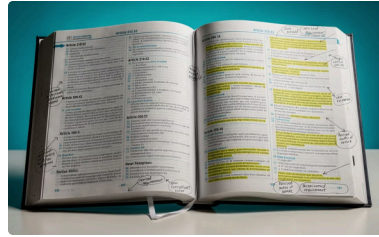
# CEC Online Courses

NETCO offers three self-paced online courses to help electricians and apprentices build confidence and proficiency with the Canadian Electrical Code (CEC). These courses are available on the **NETCO LMS** and can be accessed at any time, making them an ideal complement to in-person apprenticeship training or preparation for certification exams.



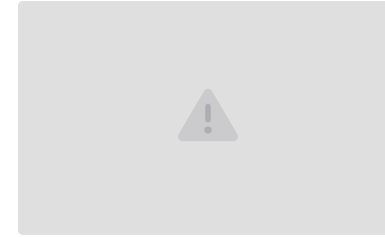
### Introduction to the Canadian Electrical Code

A beginner-friendly self-paced course that familiarizes learners with the CEC by section. Designed to assist apprentices with navigation and understanding the content of the Code as it applies to their daily work.



### 2024 Code Update

This self-paced course highlights the major changes, revisions, and deletions between the 2021 and 2024 editions of the Canadian Electrical Code. Essential reading for any practicing electrician staying current with regulatory requirements.



### Pre-Requirement for EVITP

A non-mandatory refresher course designed to help learners dust off their CEC knowledge and practice code navigation in preparation for the Electrical Vehicle Infrastructure Training Program (EVITP).

## Certification Program

# EVITP — Electric Vehicle Infrastructure Training Program

The **Electric Vehicle Infrastructure Training Program (EVITP)** provides the most comprehensive training available for the installation of Electric Vehicle Supply Equipment (EVSE) in North America today. As the demand for EV charging infrastructure grows rapidly across Canada and the United States, EVITP-certified electricians are positioned to lead the installation and commissioning of this critical technology.

More than a technical installation course, EVITP offers a full overview of the Electric Vehicle industry. The curriculum includes an extensive section on **Customer Relations and Customer Satisfaction**, equipping electricians with the communication and service skills needed to work directly with property owners, fleet managers, and commercial clients deploying charging infrastructure. This holistic approach makes EVITP graduates among the most well-rounded EV professionals in the field.

### Course Format

- 3-day in-person course
- Includes a proctored examination
- Available at affiliated IBEW Training Centres across Canada
- Preparation supported by the NETCO LMS Pre-Requisite course

### What EVITP Covers

- EVSE installation standards and best practices
- Overview of the Electric Vehicle industry landscape
- Customer relations and satisfaction
- Code compliance for EV charging installations

## Safety Training

# ARC Flash, Shock & Safety

This self-paced online course provides a comprehensive overview of electrical safety practices for individuals who work on or near energized electrical systems. ARC flash incidents remain one of the most serious hazards in the electrical trade, and this course is designed to ensure every worker understands the risks, recognizes the warning signs, and is equipped to protect themselves and their colleagues.

Participants will gain a thorough understanding of arc flash hazards, electrical shock risks in the workplace, and the **standards and regulations** that govern safe electrical work in Canada. The course covers personal protective equipment (PPE) requirements, incident energy analysis, and the hierarchy of controls for managing electrical hazards. It is available on the **NETCO LMS** and can be completed at the learner's own pace, making it accessible for busy tradespeople seeking to stay current with their safety training obligations.



### ARC Flash Hazards

Understand the physics of arc flash events, the temperatures generated, and why they represent a life-threatening risk in electrical environments.




### Electrical Safety Standards

Review the Canadian standards and regulations — including CSA Z462 — that define the obligations of workers and employers around energized electrical work.



### PPE & Risk Controls

Learn which personal protective equipment is required for different incident energy levels and how the hierarchy of controls applies to electrical hazards.

 **Delivery:** Self-paced online course available on the NETCO LMS. Suitable for all electricians working on or near energized systems.

## Certification Program

# Solar Photovoltaic Installation and Maintenance Training

The Construction Electrician (NOC 7241) **Solar Photovoltaic (PV) Systems Certified (PVSC)** Personnel Certification has been developed by **CSA Group** in conjunction with the National Electrical Trade Council (NETCO) and a broad coalition of industry stakeholders. This certification provides formal recognition that an individual possesses the competencies deemed necessary to perform the job functions of a Solar Photovoltaic Systems Certified electrician — a credential that carries significant weight as Canada's renewable energy sector continues its rapid expansion.

The self-paced online course covers the full scope of solar PV systems, from component identification and system design fundamentals to safe installation practices and ongoing maintenance requirements. As solar installation work becomes an increasingly important revenue stream for electrical contractors and a growing skill requirement for construction electricians, this certification ensures IBEW members are positioned to participate fully and safely in Canada's clean energy transition.

### Developed By

CSA Group in partnership with  
NETCO and industry stakeholders

### Target Credential

Solar Photovoltaic Systems  
Certified (PVSC) — NOC 7241  
Construction Electrician

### Delivery

Self-paced online course available  
on the NETCO LMS

## Supplementary Tool

# Motor Controls Symbols Quiz

The Motor Controls Symbols Quiz is a targeted multiple-choice assessment designed to help learners identify and recall the symbols used in motor control diagrams. A strong command of motor control symbology is essential for any electrician working in industrial environments, where the ability to read and interpret control drawings quickly and accurately can be the difference between efficient troubleshooting and costly downtime.

This quiz pairs exceptionally well with the VR Motor Control course in the VET series, though it is not a prerequisite. It can be used as a standalone study tool, a pre-assessment before the VR course, or a knowledge check after completing the full Motor Control curriculum. Available on the **NETCO LMS**, it is accessible to all learners with an active LMS account.

1

### Format

Multiple choice quiz – identify motor control symbols from diagrams

2

### Best Paired With

VR Motor Control course (VET series) – not a pre-requisite

3

### Access

Available on the NETCO LMS for all funded partner locals

# First Level Supervision Training Program

The **First Level Supervision Training Program** is designed for working supervisors, foremen, and any individual aspiring to move into a first-level supervisory role on a construction site. This program provides the critical skills and foundational concepts required to lead a construction crew effectively — balancing productivity, quality, schedule, budget, and site safety all at once.

The curriculum addresses the full scope of supervisory responsibility, from planning and scheduling daily work to communicating with management, managing conflict within a crew, and maintaining a safe and productive worksite. For IBEW members ready to take the next step in their career, this program provides a structured pathway to becoming a more capable and confident leader in the field.

BuildForce courses are delivered through the BuildForce platform using a unique access PIN. These codes are single-use. **Contact your IBEW training director for yours today.**

## Develop Supervisory Skills

Learn the concepts and competencies required to manage a construction crew, including delegation, communication, and accountability.

## Maximize Productivity & Quality

Understand how to plan and organize work to meet project targets while maintaining the highest standards of workmanship.

## On Time, On Budget, Safely

Master the fundamentals of delivering a project within scope while upholding the safety obligations that protect every worker on site.

# Introduction to Construction Estimating

The **Introduction to Construction Estimating** course is designed for individuals currently working in estimating roles or those who wish to develop estimating skills as part of their career growth. Accurate estimating is the foundation of every successful construction project — it determines whether a bid is competitive, whether a job is profitable, and whether the right materials are on site at the right time.


This course teaches learners how to visualize the scope and magnitude of a construction project and translate that understanding into accurate, reliable cost estimates. The curriculum includes a detailed review of construction drawings across multiple phases of a project, with a focus on determining the quantity and type of materials required. Participants develop the analytical and interpretive skills that allow them to read complex project documents with confidence and produce estimates that hold up under scrutiny.

## Skills You Will Develop

- Reading and interpreting construction drawings at all project phases
- Performing material quantity takeoffs
- Identifying project scope and magnitude from documentation
- Producing accurate and reliable cost estimates
- Understanding the estimating workflow from bid to award

## Who Should Enroll

Current or aspiring estimators, project coordinators, and IBEW members looking to broaden their skills beyond the tools and into the business side of electrical contracting.

 **Access:** Delivered through the BuildForce platform via a unique, single-use PIN. Contact your IBEW training director to obtain your access code.

# Respectful and Inclusive Workplaces

The Canadian construction and maintenance industry is committed to building workplaces where every worker — regardless of background, identity, or experience level — feels respected, valued, and safe. The **Respectful and Inclusive Workplaces** course is designed to equip participants with a comprehensive toolkit of skills and behaviors that support a positive workplace culture built on fairness, dignity, and mutual respect.

The course addresses the full spectrum of respectful workplace principles: the elimination of discrimination and harassment, constructive communication techniques, effective teamwork strategies, and the role of mentorship in building an inclusive crew culture. Delivered using interactive elements, scenario-based learning, videos, and quizzes, this course actively engages learners rather than passively presenting information. It is relevant for workers at all levels — from apprentices to journeymen to supervisors.



## Eliminate Discrimination & Harassment

Understand what constitutes harassment and discrimination, recognize it in real workplace scenarios, and learn how to respond appropriately and effectively.




## Constructive Communication

Develop the communication skills needed to address conflict, provide feedback, and build working relationships that are productive and respectful.



## Teamwork & Mentorship

Explore how mentorship and team dynamics contribute to an inclusive workplace, and learn strategies for being a positive influence on crew culture.

 **Access:** Delivered through the BuildForce platform via a unique, single-use PIN. Contact your IBEW training director to obtain your access code.

## Question Banks

# CEC Question Banks & Red Seal Exam Prep

NETCO offers two sets of self-paced question banks on the NETCO LMS to help apprentices and journeymen build proficiency and speed in navigating and applying the Canadian Electrical Code. Both question bank series are designed to be used alongside the physical CEC book, reinforcing the habit of accurate, efficient code navigation — a skill that is tested in every CEC-based examination.

## 2024 CEC Question Banks — Years 1 through 5

Compiled by **IBEW Local 1687**, these code exercise banks cover the full range of apprenticeship training from Year 1 through Year 5. Each question bank is keyed to the **2024 edition of the Canadian Electrical Code** and is designed to build familiarity with code structure, section navigation, and the application of rules to practical scenarios. Ideal for apprentices preparing for year-end exams or simply wanting to reinforce their daily code study habits.

- Covers Years 1–5 of electrical apprenticeship training
- Paired with the 2024 edition of the CEC
- Available on the NETCO LMS

## C of Q Prep Question Banks

Designed specifically for journeymen preparing for the **Red Seal (Certificate of Qualification) Examination**, these multiple-choice question banks sharpen the code navigation speed and accuracy required to succeed under exam conditions. Broken down into focused units of 10 questions, these banks allow learners to work through targeted practice sessions that build cumulative competency over time.

- Multiple choice format — 10 questions per unit
- Focused on Red Seal exam preparation
- Available on the NETCO LMS

# Course Outlines, Downloads & NETCO LMS

NETCO provides downloadable course outlines for all major training programs, giving employers, training directors, and prospective learners the ability to review detailed curriculum content before enrolling. All course outlines are available as PDF downloads directly from the NETCO website.

1

## ARC Flash and Shock Safety

Full course outline covering electrical safety standards, PPE requirements, and arc flash hazard principles.

2

## Solar Photovoltaic

Detailed outline for the CSA Group PVSC certification program for Construction Electricians (NOC 7241).

3

## PLT Drone Training

Overview of the 3-day drone certification program for Power Line Technicians delivered with Saskatchewan Polytechnic.

4

## First Level Supervisor

Complete program outline for the BuildForce supervision training course targeting foremen and new supervisors.

5

## EVITP

Course outline for the Electric Vehicle Infrastructure Training Program including the proctored exam requirements.

6

## Introduction to Instrumentation

Outline for the upcoming 12-lab VR instrumentation course aligned with the Level 3 CME curriculum.

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## NETCO Learning Management System

All NETCO funding partner locals have their own dedicated branch on the **NETCO LMS**. The LMS serves as the central hub for accessing self-paced courses, question banks, and assessments across the NETCO training catalogue. Partner locals can also use the platform to create and host their own custom training content, making it a powerful tool for local training directors looking to expand their program offerings.

To get set up on the NETCO LMS or to learn more about hosting your own training programs through the platform, contact **Denise Miller** at [Denise.Miller@netco.org](mailto:Denise.Miller@netco.org).

## Infrastructure

# NETCO National Training Centres

NETCO's training programs are delivered through a network of **NETCO National Training Centres** located across Canada. These facilities serve as the in-person hubs for hands-on courses such as EVITP, Hoisting & Rigging, Motor Control, and other hybrid programs that require physical equipment or proctored examinations. Each training centre is affiliated with an IBEW local and maintains the equipment, facilities, and certified instructors needed to deliver NETCO's full range of in-person programming.

A complete, up-to-date directory of NETCO National Training Centres — including locations, contact information, and available programs at each site — is available as a downloadable PDF from the NETCO website. Training directors and prospective learners are encouraged to consult this directory to identify the closest training centre and confirm program availability in their region.

### Find a Centre

Download the 2026 NETCO National Training Centres directory PDF from the NETCO website for a full list of locations across Canada.

### In-Person Programs

Training centres deliver EVITP, Hoisting & Rigging, Motor Control, and other courses requiring hands-on equipment or proctored testing.

### Contact NETCO

Reach out to NETCO at PO Box 4626, Rothesay, NB E2E 5X3, or connect via the NETCO website to find the right training pathway for your local.

[NETCO.ORG](https://www.netco.org)

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