



IBEW - CECA | NATIONAL ELECTRICAL
TRADE COUNCIL

FIOE - ACEE | CONSEIL NATIONAL DES MÉTIERS
DE L'INDUSTRIE ÉLECTRIQUE

National Training Catalogue

Building Canada's Electrical Workforce



Virtual Reality • Instructor-Led • Online • Hybrid

www.NETCO.org

A MESSAGE FROM THE **EXECUTIVE DIRECTOR**



Welcome to the National Electrical Trade Council's Course Catalogue.

At NETCO, we believe that investing in people is the key to building a stronger electrical industry. Our mission has always been to provide training that is relevant, practical, and responsive to the changing needs of our workforce.

The electrical industry continues to evolve at an incredible pace. From electric vehicle infrastructure and virtual reality learning to drone technology and emerging energy systems, today's tradespeople require opportunities to continually expand their knowledge and skills. NETCO is proud to work alongside IBEW Canada, CECA, our affiliated training centres, and industry partners to develop programs that prepare electricians and powerline workers for both today's challenges and tomorrow's opportunities.

Every course we offer is designed with one goal in mind--to provide high-- quality training that enhances safety, builds confidence, and supports professional growth. Whether you are beginning your career, advancing your skills, or exploring new technologies, our programs combine experienced instruction with modern learning tools to deliver meaningful results.

Innovation has become a cornerstone of our training initiatives. Through immersive virtual reality, nationally recognized certifications, online learning, and hands-on instruction, we continue to explore new ways to make training more engaging, accessible, and effective for apprentices and journey persons across Canada.

Thank you for your interest in NETCO. We look forward to supporting your continued success and helping build the skilled electrical workforce Canada depends on.

Chris Swick, RSE

Executive Director
National Electrical Trade Council (NETCO)



NETCO LEARNING MANAGEMENT SYSTEM (LMS)

Flexible. Accessible. Built for the Skilled Trades.

The NETCO Learning Management System (LMS) is a national online learning platform supporting apprenticeship training, instructor development, continuing education, and workforce advancement across Canada's electrical industry. Accessible anytime, anywhere, the LMS delivers high-quality training for apprentices, journeypersons, instructors, and training directors.

Originally developed to support NETCO's Virtual Electrical Training (VET) programs, the platform has evolved into a collaborative learning hub where IBEW training centres and industry partners can deliver courses, share resources, and standardize training nationwide. Each participating training centre can maintain its own customized LMS branch.

What's Available

The LMS hosts hundreds of learning resources, including:

- Virtual Reality (VR) training programs
- Canadian Electrical Code (CEC) courses
- Red Seal practice question banks
- EVITP certification testing
- Solar PV and safety training
- Trade school curriculum
- Leadership, business, and professional development courses

Key Features

- 24/7 access from any computer, tablet, or mobile device
- Self-paced, interactive learning
- Online quizzes, assignments, and assessments
- Instant grading and progress tracking
- Bilingual EVITP testing (English & French)
- National resource sharing between training centres

Supporting Skilled Trades Training

The LMS integrates seamlessly with NETCO's Virtual Reality training programs, delivering online theory, assessments, and supporting resources alongside immersive learning experiences. It also provides training centres with powerful tools to manage learners, administer assessments, track progress, and deliver standardized training across Canada.

VIRTUAL REALITY TRAINING

RESIDENTIAL WIRING (VET 1) - Course Overview

Available on META Quest Headsets paired with the NETCO Learning Management System

Overview

An immersive Virtual Reality training program that introduces apprentices to fundamental residential wiring in a safe, interactive environment. Learners complete realistic installations using a Meta Quest headset and the NETCO Learning Management System, building confidence before working on live electrical systems.

- Participants will learn to:
- Install common residential wiring circuits
- Apply safe work practices
- Read basic wiring layouts
- Develop troubleshooting skills through repetition

CONDUIT BENDING (VET 2)

Visual Electrical Training 2 (VET 2) – Conduit Bending

Available on META Quest Headsets paired with the NETCO Learning Management System

Overview

Master conduit bending through immersive Virtual Reality training. This self-paced program teaches industry-standard bending techniques while eliminating material waste and allowing unlimited practice in a safe environment.

Participants will learn to:

- Perform common conduit bends
- Improve measurement accuracy
- Understand conduit bending calculations
- Build confidence before shop training

VIRTUAL REALITY TRAINING

Including Class Room Component with Instructor

HOISTING, RIGGING & MOVING

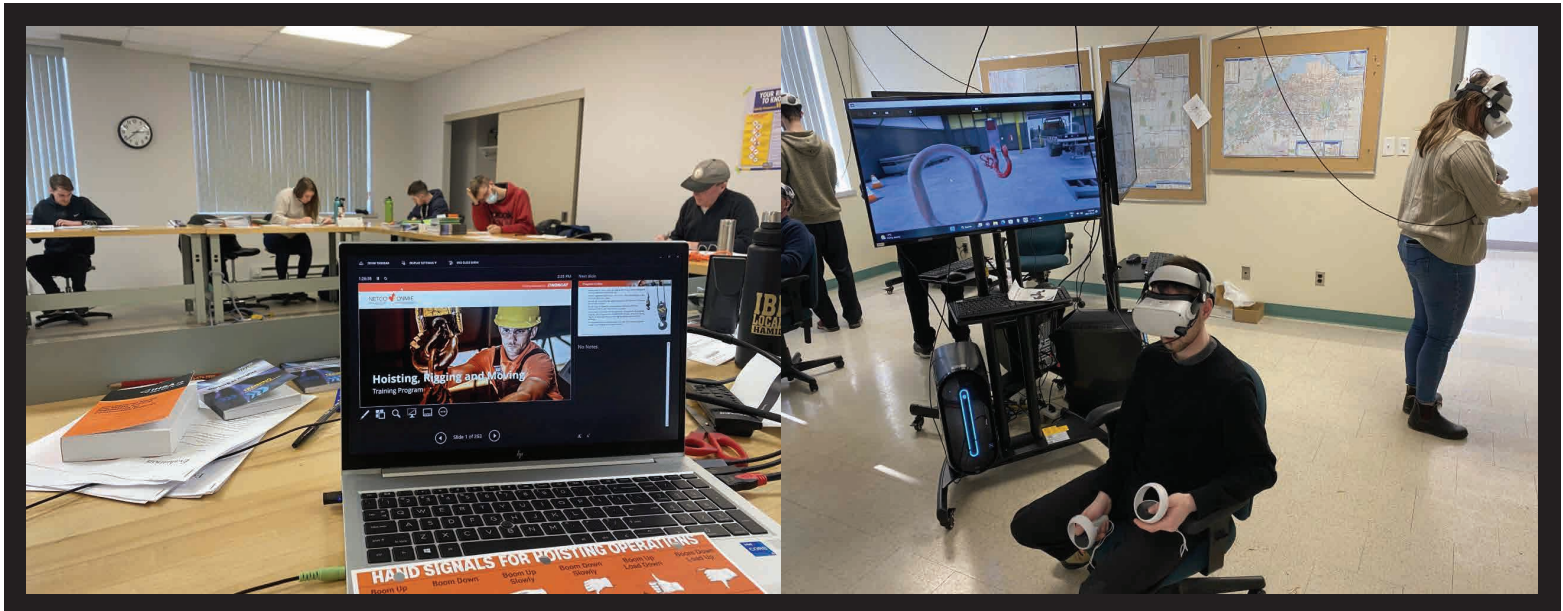
Blended Learning Available Classroom training paired with Virtual Reality Labs including VR Headsets and Gaming PC's

Overview

A three-day instructor-led program combining classroom instruction with Virtual Reality simulations. Developed with NORCAT, the course prepares participants to safely perform lifting and rigging operations through realistic scenarios and practical decision-making. Course includes Instructor notes, lesson plans, power points, student workbook and resource book.

Participants will learn to:

- Recognize lifting hazards
- Select appropriate rigging equipment
- Apply safe lifting procedures
- Improve planning and communication



IBEW 105, Hamilton, ON

MOTOR CONTROL - IBEW TRADE SCHOOL EDITION

Classroom training paired with Virtual Reality Labs including VR Headsets and Gaming PC's

Overview

This instructor-led program provides apprentices with the knowledge and hands-on experience needed to install, wire, test, and troubleshoot industrial motor control systems. Combining classroom instruction with practical assignments and immersive Virtual Reality labs, participants develop the skills required to confidently work with motor control circuits used in today's industrial environments.

Participants will learn to:

- Read and interpret ladder diagrams
- Identify and wire motor control components
- Install and test common motor control circuits
- Apply safe troubleshooting techniques
- Develop practical skills through Virtual Reality laboratories

Ideal For

Electrical Apprentices, IBEW Training Centres

Instructor-Led Classroom + Virtual Reality Labs
45 Hours (18 Theory • 27 Practical)
Includes 4 assignments and 7 VR laboratories.



MOTOR CONTROL - INSTALLATION METHODS 3 DAY COURSE

Classroom training paired with Virtual Reality Labs including VR Headsets and Gaming PC's

Overview

This instructor-led program provides electrical apprentices with hands-on training in motor control installation, wiring, testing, and troubleshooting. Through schematic development, worksheets, and immersive Virtual Reality labs, participants build practical skills while reinforcing safe work practices and industry-standard installation methods.

Participants will learn to:

- Read and interpret motor control schematics
- Wire and test AC and DC motor control circuits
- Apply starting, reversing, and braking methods
- Troubleshoot common control system faults
- Develop safe installation and verification practices

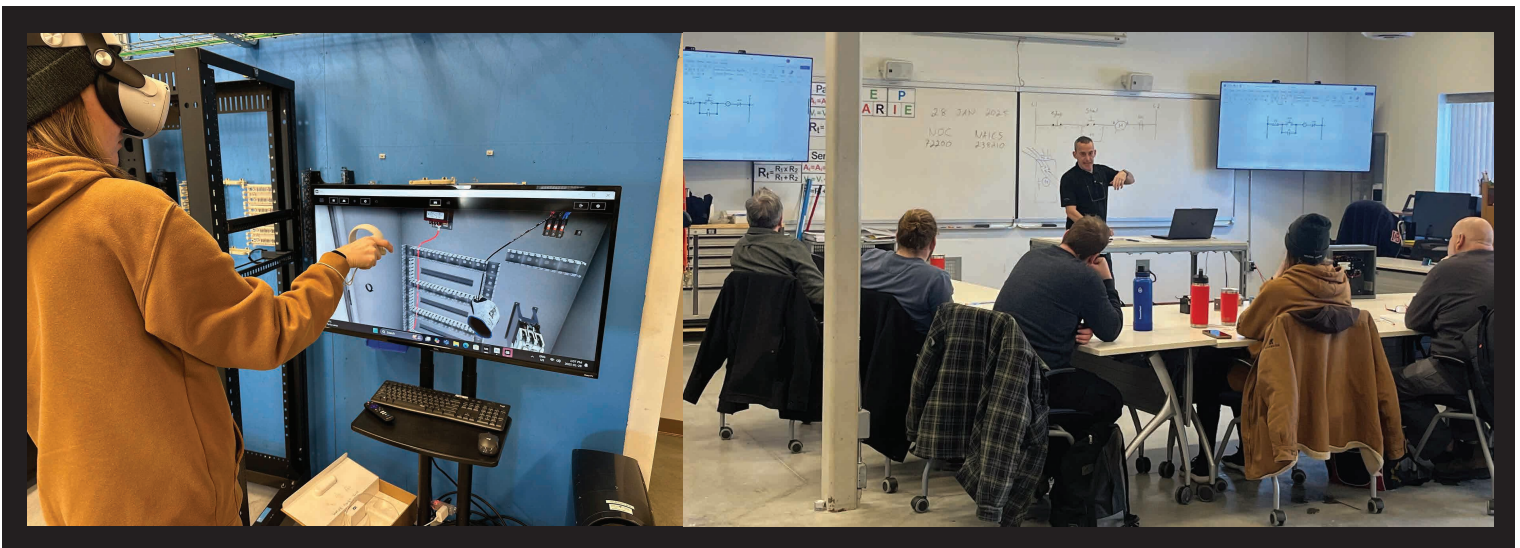
Ideal For

Electrical Apprentices, IBEW Training Centres

Instructor-Led Classroom + Virtual Reality Labs

39 Practical Hours

Includes 10 VR Laboratories, worksheets, and instructor validation.



IBEW 586, Ottawa

INTRODUCTION TO INSTRUMENTATION - IBEW TRADE SCHOOL EDITION

Classroom training paired with Virtual Reality Labs including VR Headsets and Gaming PC's

Overview

Designed for Level 3 electrical apprentices, this instructor-led program introduces the fundamentals of industrial instrumentation and process control. Combining classroom instruction, practical exercises, and immersive Virtual Reality laboratories, participants develop the knowledge and confidence to install, connect, verify, and troubleshoot instrumentation systems used in modern industrial facilities.

Participants will learn to:

- Interpret Process & Instrumentation Diagrams (P&IDs)
- Measure pressure, temperature, level, and flow
- Understand instrumentation signals and control loops
- Install, connect, and verify field instruments
- Apply basic troubleshooting and calibration techniques
- Build confidence using Virtual Reality simulations

Ideal For

Electrical Apprentices, IBEW Training Centres

Instructor-Led Classroom + Virtual Reality Labs
36 Hours (18 Theory • 18 Practical)

INTRODUCTION TO INSTRUMENTATION - 3 DAY COURSE

Classroom training paired with Virtual Reality Labs including VR Headsets and Gaming PC's

Overview

A three-day introductory course covering the fundamentals of industrial instrumentation. Classroom instruction is reinforced through Virtual Reality activities that allow participants to identify, connect, test, and verify common field devices.

Participants will learn to:

- Measure pressure, temperature, level and flow
- Understand instrumentation signals and documentation
- Perform basic calculations
- Interpret simple instrumentation diagrams



ARC FLASH & SHOCK SAFETY (CSA Z462:24)

Self paced online course available on the NETCO Learning Management System (LMS)

Overview

A self-paced online course based on CSA Z462:24 that provides essential electrical safety awareness. Participants learn to identify hazards, reduce risk, and work safely around energized electrical equipment.

Participants will learn to:

- Recognize Arc Flash and shock hazards
- Apply safe work practices
- Select appropriate PPE
- Understand risk assessments and safe work procedures

2024 CANADIAN ELECTRICAL CODE UPDATE

Self paced online course available on the NETCO Learning Management System (LMS)

Overview

Stay current with the latest changes to the Canadian Electrical Code. This self-paced online course highlights significant revisions between the 2021 and 2024 editions, helping electrical professionals maintain compliance and apply new requirements with confidence.

Participants will learn to:

- Identify major Code changes
- Understand new and revised rules
- Apply updated installation requirements
- Improve Code compliance



MOTOR CONTROL SYMBOLS ASSESSMENT

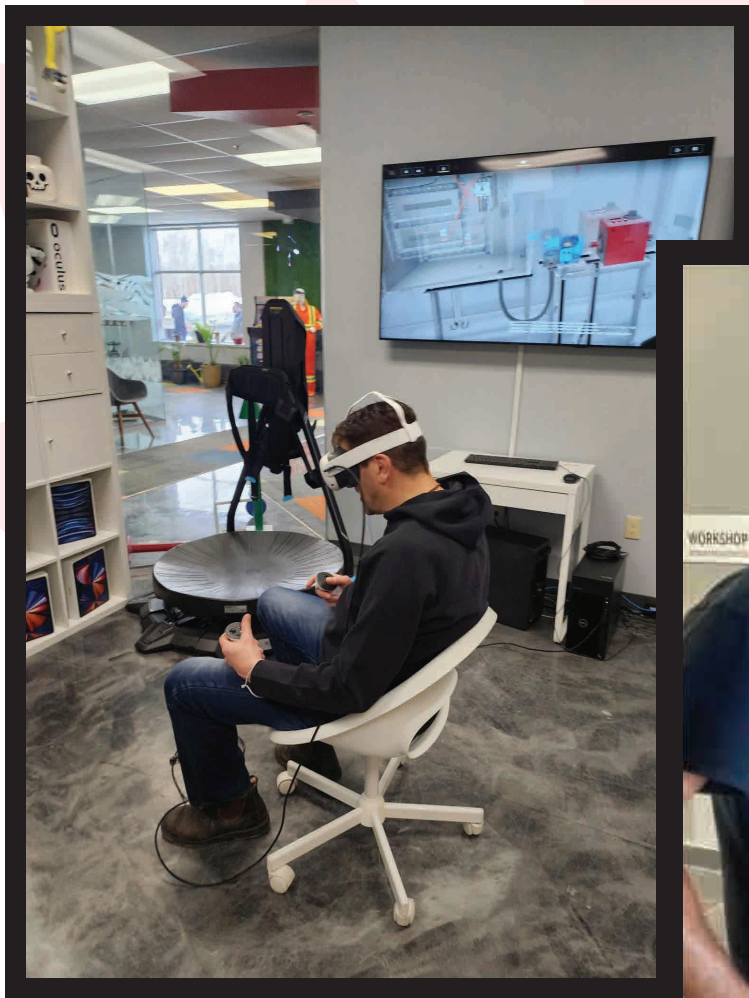
Self paced online course available on the NETCO Learning Management System

Overview

A self-paced online assessment designed to strengthen recognition of industry-standard motor control symbols. Ideal as a refresher or companion to NETCO's Motor Control training programs.

Participants will:

- Improve schematic interpretation
- Strengthen symbol recognition
- Reinforce troubleshooting skills
- Prepare for advanced motor control training



Norcat Studio, Sudbury
Steering Committee Meeting



IBEW 804, Kitchener

ONLINE SELF-PACED TRAINING

via the NETCO Learning Management System

SOLAR PHOTOVOLTAIC INSTALLATION & MAINTENANCE FOR CONSTRUCTION ELECTRICIANS

Overview

Developed with CSA Group, this online program prepares electricians to safely install, commission, troubleshoot, and maintain photovoltaic systems while preparing for the CSA Solar Photovoltaic Systems Certified (PVSC) examination.

Participants will learn to:

- Understand PV system design
- Apply Canadian standards
- Commission and maintain PV systems
- Prepare for PVSC certification



CERTIFICATE OF QUALIFICATION EXAM QUESTION BANKS

Overview

Prepare for your Certificate of Qualification (Red Seal) Exam with hundreds of self-paced, multiple-choice question banks designed to strengthen your Canadian Electrical Code knowledge and navigation skills. Organized into convenient 10-question units, these interactive assessments allow learners to build confidence, reinforce classroom learning, and practice at their own pace through the NETCO Learning Management System (LMS).

Participants will learn to:

- Strengthen Canadian Electrical Code navigation skills
- Apply Code rules to exam-style questions
- Reinforce key electrical concepts
- Identify areas requiring additional study
- Build confidence for the Certificate of Qualification (Red Seal) Exam

Ideal For

Electrical Apprentices, Red Seal Exam Candidates

Self-Paced Online

Hundreds of Multiple-Choice Question Banks

Available through the NETCO Learning Management System (LMS)

2024 CANADIAN ELECTRICAL CODE QUESTION BANK (YRS 1-5)

Overview

Self-paced online question banks designed to reinforce Canadian Electrical Code knowledge throughout apprenticeship. Organized by Years 1–5, these modules help apprentices develop strong Code navigation skills and prepare for exams.

Participants will:

- Strengthen Code interpretation
- Improve Code navigation
- Reinforce classroom learning
- Prepare for Red Seal examinations

INSTRUCTOR-LED PROGRAMS

DRONE PILOT TRAINING FOR POWER LINE TECHNICIANS

Overview

Developed in partnership with Saskatchewan Polytechnic, this three-day instructor-led program prepares Power Line Technicians to safely operate drones for utility inspections, asset management, and infrastructure monitoring. Combining classroom instruction with hands-on flight training, participants gain the knowledge and practical skills required to earn their Transport Canada Basic Drone Pilot Certification.

Participants will learn to:

- Understand Transport Canada drone regulations
- Plan and conduct safe flight operations
- Perform pre-flight inspections and risk assessments
- Operate drones around utility infrastructure
- Build confidence through supervised flight training

Ideal For

Power Line Technicians, Signatory Utility Workers, IBEW Training Centres

Instructor-Led Classroom + Practical Flight Training

3 Days

Training delivered by a Transport Canada Certified Drone Instructor in partnership with Saskatchewan Polytechnic.

IBEW 37, Fredericton





ELECTRIC VEHICLE INFRASTRUCTURE TRAINING PROGRAM (EVITP)

3 Day Classroom Training with exam hosted on the NETCO Learning Management System

Overview

North America's leading EV charging infrastructure certification program, EVITP prepares electricians to safely install, commission, maintain, and troubleshoot Electric Vehicle Supply Equipment (EVSE). Delivered through affiliated IBEW Training Centres across Canada, this three-day instructor-led program combines industry-recognized curriculum with a proctored certification exam administered through the NETCO Learning Management System (LMS).

Participants will learn to:

- Install and commission EV charging infrastructure
- Apply Canadian Electrical Code requirements and industry standards
- Understand Level 1, Level 2, and DC Fast Charging systems
- Perform basic troubleshooting and maintenance
- Prepare for the EVITP certification examination

Ideal For

Licensed Electricians, Late Term Apprentices, IBEW Training Centres, Signatory Electrical Contractors

Instructor-Led Classroom

3 Days

Includes a proctored final examination leading to EVITP Certification, delivered through affiliated IBEW Training Centres across Canada.



IBEW 586, Ottawa



EJTC

BUILDFORCE COURSES

Pins available for a limited time via the National Electrical Trade Council – NETCO
Available in English and French.

FIRST LEVEL SUPERVISOR TRAINING PROGRAM

Overview

Designed for new and aspiring supervisors, this self-paced online course develops the leadership and communication skills needed to effectively supervise construction crews while improving productivity, safety, and team performance.

Participants will learn to:

- Build effective leadership and supervisory skills
- Communicate with confidence
- Plan, schedule, and coordinate work
- Lead productive teams and meetings
- Manage workplace challenges and performance issues

Ideal For

Supervisors, Foremen, Lead Hands, and Individuals Preparing for a Supervisory Role

Self-Paced Online

Approx. 14 Hours

Approved toward Industrial Construction Crew Supervisor (ICCS) certification.

Available on the Buildforce Learning Management System

Gold Seal Certification accredited - 4 credits



Approved training toward
Industrial Construction Crew
Supervisor (ICCS) certification

WORKING IN A RESPECTFUL AND INCLUSIVE WORKPLACE

Overview

This self-paced online course helps participants build respectful, inclusive workplaces by promoting effective communication, teamwork, and leadership while supporting a positive and welcoming work environment.

Participants will learn to:

continue...

- Promote respectful and inclusive workplace practices
- Recognize and prevent discrimination and harassment
- Communicate effectively with diverse teams
- Lead by example
- Strengthen teamwork and mentorship skills

Ideal For

Managers, Supervisors, Team Leaders, and Construction Professionals

Self-Paced Online

Approx. 3 Hours

Available through the Buildforce Learning Management System (LMS)

Gold Seal certification accredited - 1 credit

INTRODUCTION TO CONSTRUCTION ESTIMATING

Overview

This self-paced online course introduces the fundamentals of construction estimating, helping participants develop the skills needed to prepare accurate project estimates, interpret drawings, and manage material quantities throughout the construction process.

Participants will learn to:

- Understand construction estimating principles
- Interpret drawings and project specifications
- Estimate material quantities and costs
- Organize bid information and project documentation
- Support purchasing and material planning

Ideal For

Estimators, Project Coordinators, Construction Professionals, and Individuals Interested in Construction Estimating

Self-Paced Online

Approx. 4 Hours

Available through the Buildforce Learning Management System

Gold Seal Certification accredited - 2 credits



IBEW 804 - Train the Trainer
Hoisting, Rigging and Moving



EVITP Train the Trainer
IBEW 2330, Newfoundland



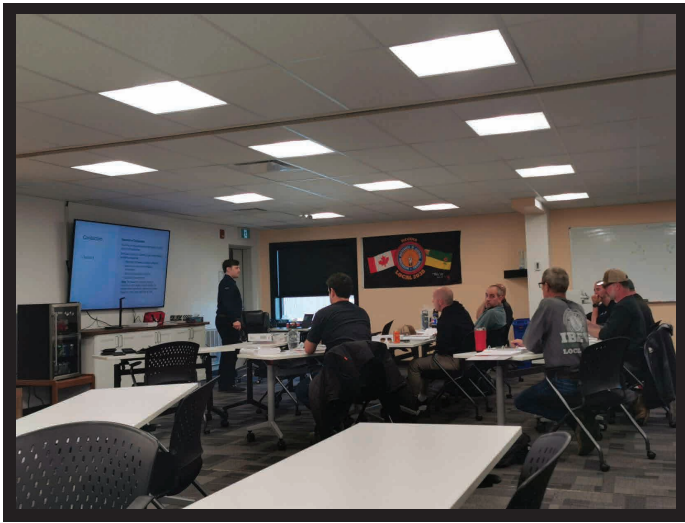
IBEW 625, Halifax



WJETS

Connor Rancourt – 2nd term apprentice

“The VR training was unlike anything I had ever experienced. Being able to practice troubleshooting live circuits in a safe, realistic environment gave me confidence before stepping onto a job site. Without the SDF funding, we wouldn’t have access to this kind of technology, and it really set me ahead in my apprenticeship.”



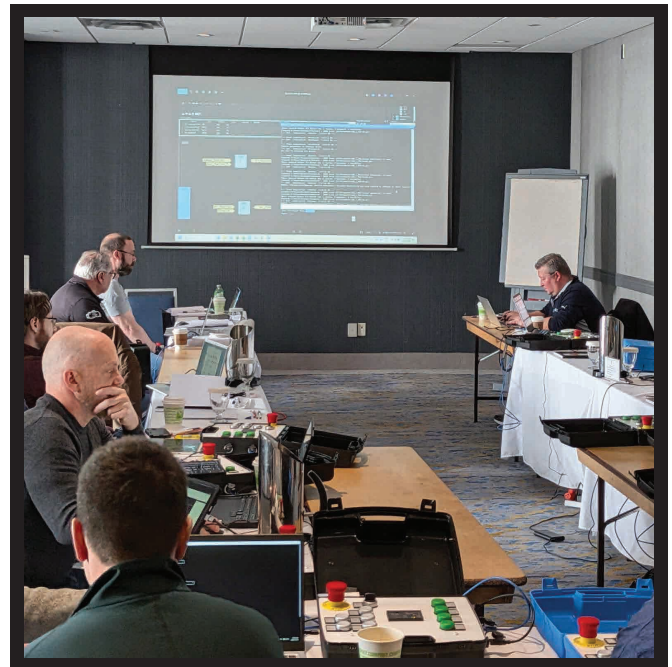
IBEW 2038 Regina



IBEW 303 Niagara Falls



IBEW 1555 Moncton NB



Train the Trainer PLC Programming

Rob Foster – 2nd term apprentice

“Having access to the SDF training made a big difference for me. The VR modules gave me real practice in motor control and meter use that boosted both my knowledge and confidence. Programs like this show how serious IBEW is about safety and skills, and I know I’m better prepared because of it.”

PROGRAMS IN DEVELOPMENT:

- VR Transformer Training
- AI Code Tutor
- and so much more...



IBEW 424, Alberta



IBEW 402



IBEW 2085, YWG

Matt Campbell – Journeyman Electrician

“The upgrade training through the SDF program gave me hands-on skills that I use every day at work. The VR sessions were state-of-the-art and let me make mistakes and learn without risk. It’s training we never would have had otherwise, and it has made me a stronger, safer electrician.”



IBEW 2085, Winnipeg MB



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NOTES

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DE L'INDUSTRIE ÉLECTRIQUE

Electric Vehicle
EVITPTM
Infrastructure Training Program



IBEW
CANADA



**LEADING THE
CHARGE**

EV charging





IBEW 115, Kingston, ON



IBEW 586, Ottawa



Funding Partners

Joint Electrical Promotions Plan - JEPP

Electrical Industry Training Centres of Alberta

IBEW Construction Council of Ontario (CCO)

IBEW Local 424

ECA Ontario

ECANB

IBEW Local 105

IBEW Local 37

IBEW Local 115

IBEW Local 502

IBEW Local 120

IBEW Local 529

IBEW Local 303

IBEW Local 625

IBEW Local 353

IBEW Local 1007

IBEW Local 402

IBEW Local 1555

IBEW Local 530

IBEW Local 1620

IBEW Local 586

IBEW Local 1852

IBEW Local 773

IBEW Local 1928

IBEW Local 804

IBEW Local 2038

IBEW Local 1687

IBEW Local 2067

Electrical Joint Training Committee (EJTC)

IBEW Local 2085

ECA British Columbia

IBEW Local 2330

IBEW Local 213

IBEW Local 2166

WJETS - The Western Joint Electrical training society

IBEW Local 230

IBEW Local 993

IBEW Local 1003

ECAA

NETCO



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