

**Confederation College:  
A northern engine for  
workforce development  
and regional prosperity**

Ambassadors Northwest  
March 12, 2026



# Update Overview

- Confederation College has been serving Northwestern Ontario for over 55 years as a **leader in workforce-ready education and applied innovation**
- **Training the talent** required for the region's key sectors: trades, health, technology, natural resources, and infrastructure
- **Deep partnerships with Indigenous communities**, supporting access, reconciliation, and economic participation
- **Working alongside industry, communities, and governments** to address Northern workforce challenges

Today's discussion will highlight how we are advancing:

- **Applied research and innovation**
- **Skilled trades and apprenticeships**
- **Workforce development partnerships**

# Applied Research and Innovation

Tim Larocque, PhD

Director, Applied Research and Innovation

# Purpose-Driven, Partner-Focused, Student-Engaged

## What It Is

- Co-designed with industry and community partners
- Focused on solving real, defined challenges
- Integrated into student learning experiences

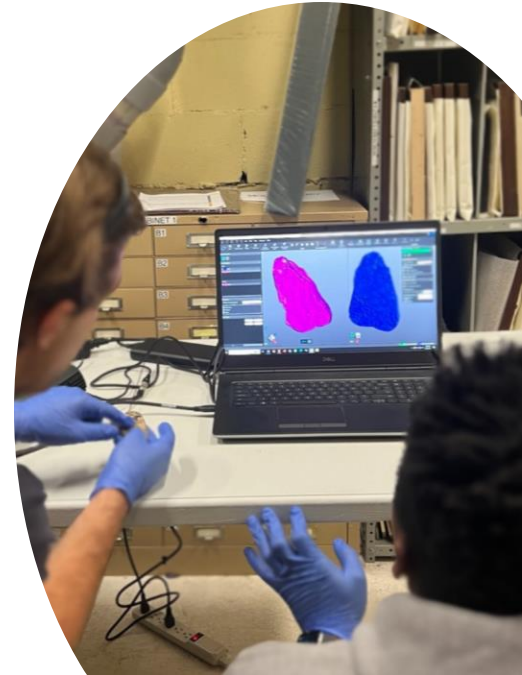
## What It Is Not

- Primarily theoretical or discipline-driven inquiry
- Research conducted in isolation from end users
- Publication-first or citation-based success metrics



# Anticipated Outcomes

1. **Students** develop adaptive thinking, professional confidence, and the ability to translate ideas into action through authentic, hands-on projects.
2. **Graduates** emerge with meaningful experiences that strengthen employability and readiness for complex, real-world challenges.
3. **Industry and community partners** gain access to fresh insights, applied solutions, and a pipeline of skilled, work-ready talent.
4. Regional collaboration strengthens **economic and social impact**.



## Research Areas

### Computer Programming

- Focuses on designing and developing software and applications across diverse fields, including web, mobile, and artificial intelligence. Highlights technical proficiency, creativity, and problem-solving to deliver efficient, user-centered digital solutions.

### Social Innovation and Sustainability

- Centers on partnerships and initiatives that create measurable community impact, promote equitable development, and foster healthier, more inclusive environments through practical, sustainable approaches



## Research Areas

### Manufacturing and Technology

- Utilizes advanced additive manufacturing, prototyping, composites development, and precision CNC technologies to design, build, and test innovative solutions. Drives applied research and product development through hands-on creation and technological expertise.

### Healthcare

- Engages students and partners in projects that address real-world healthcare challenges. Emphasizes collaboration with professionals, data-driven problem-solving, and the development of innovative, patient-centered solutions.



## Intellectual Property and Commercialization

Intellectual property and commercialization rights are retained 100% by the industry partner, granting them full ownership of project outcomes and future applications.



# Funding Opportunities

## NSERC Applied Research and Development Grant

- Supports innovation with the common goal of creating economic, social and/or environmental benefits
- Up to \$150,000 per year; 1-3 years; cost sharing must be at least 25% of the grant amount



## eCampus Ontario OCIP

- Designed for accessible entry-level innovation projects
- \$3,000 of in-kind support for an expert assessment/scope of work



## OCI Collaborate 2 Commercialize

- Fosters academia–industry collaboration to solve real-world problems and advance IP commercialization
- 50% of total eligible project costs from \$20k - \$150k



# What It's Like for Students

## Co-Developed Training Plans

- Learning goals created collaboratively with faculty and mentors.

## Onboarding and Orientation

- Includes project overview, safety training, and NDA completion.

## Mentorship and Support

- Continuous guidance from faculty, staff, and industry partners.

## Partner Collaboration

- Students participate in meetings, share progress updates, and contribute to project planning.

## Skill Development

- Builds technical and professional competencies through applied research.



# Adding to Ontario's Innovation Ecosystem

Our role is to support and enhance the regional innovation ecosystem by partnering where needed, sharing resources, and building capacity to help organizations innovate and grow.



Confederation College helps develop innovative 3D-printed Braille signage



# Funding Partners

Our work is supported through  
funding from NSERC and FedNor



# Trades & Apprenticeships

Andrew Phillips C.Tech, RSE, ME  
Associate Dean, Trades and Apprenticeship

# Introduction

- Instrumentation Engineering Technician 1998
- Welding Certificate 2002
- Pulp and Paper Technician 2002
- Vocational Teacher Diploma 2013
- Instrumentation and Controls Technician 2003
- Industrial Electrician 2008 and 2015
- Construction and Maintenance Electrician (RSE) 2021
- Certified Engineering Technician (C.Tech)
  - Certified Technicians and Technologists of Manitoba (CTTAM)
  - Ontario Association of Certified Engineering Technicians and Technologists (OACETT)
- Master Electrician (ME)

# Work Experience

- Pulp and Paper
  - *Instrumentation Apprentice to Journeyperson*
  - *Supervisor, Electrical and Instrumentation*
  - *Superintendent, Yard and Fire*
  - *Superintendent, Electrical and Instrumentation*
- High Pressure Gas Transmission
  - *Field Technician and Field Work Planner*
- Municipal Water Treatment
  - *Electrician and Electrical Foreman*
- Printing
  - *Electrical Apprentice to Journeyperson*
- Education
  - *Electrical Trades Instructor*

# Knowledge check

- How many trades are certified through Skilled Trades Ontario (STO)?
- Are all 144 trades compulsory?
- Do all trades have Certificate of Qualification exam (C of Q)?
- Are all trades managed under STO?
- 144
- No, only 23 are.
- No, 83 of the 144 do have a C of Q exam
- No, some fall under Technical Safety Standards Authority (TSSA) or Transport Canada

# Apprenticeship vs Post Secondary Training

## Apprenticeship

- Under the Ministry of Labour, Immigration, Training and Skills Development (MLITSD)
- Employer Driven – hires the apprentices then the apprentices attends technical training with a Training Delivery Agent (TDA)
- Number of seats is based on MLITSD demand
- Apprenticeship offerings are limited by MLITSD and allows other TDAs to object
- TDAs are funded by MLITSD based on a pre-established seat price
- Program standard set through Skilled Trades Ontario (STO) – No PAC
- Combination of on the job (mostly) and in class learning

## Post Secondary

- Under the Ministry of Colleges, Universities, Research Excellence and Security (MCURES)
- Student driven – apply to a program of their choice at a Designated Learning Institute (DLI)
- Number of seats is the DLI's choice
- DLI can add programs as long as it is submitted to MCURES for approval
- Tuition rates are paid by student and based on institutional, and program and grants are set by MCURES
- Program standards are set by several bodies and undergo program review
- Primarily in class learning but may include a co-op

# Apprenticeship vs Post Secondary Training Models

## Apprenticeship

- Block format
- Students are on a “leave” from their employer and attend for 6,7,8,9 or 10 weeks depending on their trade.

## Post Secondary

- Seven-one-seven cycle
- Fall semester and winter semester

# Ontario Apprenticeship Statics



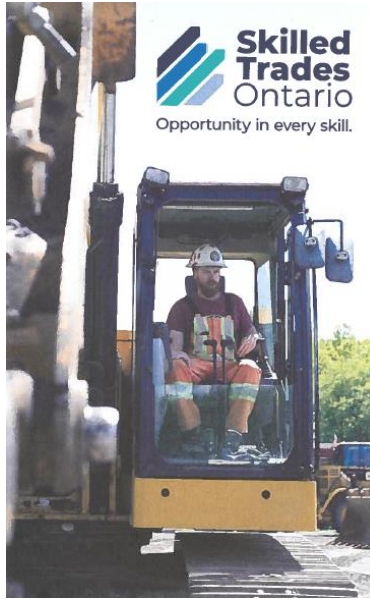
Red Seal trade

## 2024 Apprentices

- Ontario – 89,983
- Northern Region – 7,722
  
- March 2, 2026 Apprentices
- Ontario – 111,613
- Northern Region – 14,905

Skilled Trade Ontario (STO) recently reported a 40% increase over the last 6 years

# Skilled Trades Ontario 2024 Quick Facts



**Skilled Trades Ontario**  
Opportunity in every skill.

## Quick Facts

All stats as of December 31, 2024

**89,983** Apprentices  
85% Male 14% Female 1% Other

**25,710**  
Employer sponsors with Apprentices

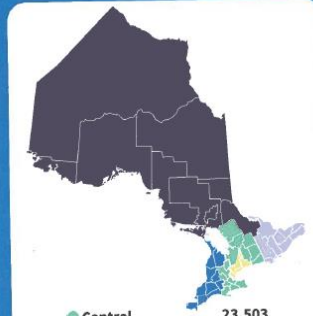
**20,102**  
New apprentices in 2024

**10,918**  
Certificates of Qualification, including:  
**7,680** Apprentices **2,783** Trade Qualifiers **455** Recognized Canadian Certificates

*\*Includes individuals who self-identified as transgender, other or chose not to disclose.*

1

## Active Apprenticeships in Ontario



2

## Top 10 trades by active apprentices

Electrician — Construction and Maintenance	<b>14,438</b>
Automotive Service Technician	<b>9,625</b>
General Carpenter	<b>7,571</b>
Plumber	<b>7,254</b>
Industrial Mechanic Millwright	<b>4,773</b>
Truck and Coach Technician	<b>4,675</b>
Hairstylist	<b>4,161</b>
Child Development Practitioner	<b>2,754</b>
Refrigeration & Air Conditioning Systems Mechanic	<b>2,692</b>
Sheet Metal Worker	<b>2,604</b>

3

## Top 10 in demand trades

Automotive Service and Truck and Coach Technicians
Construction and Industrial Millwrights
Electricians
Plumbers
Heating, Refrigeration and Air Conditioning Mechanics
Cooks
Hairstylists
Heavy-Duty Equipment Technicians
Carpenters
Landscape and Horticulture Technicians

4

# Skilled Trades Ontario Certification of Qualification (C of Q) Statics

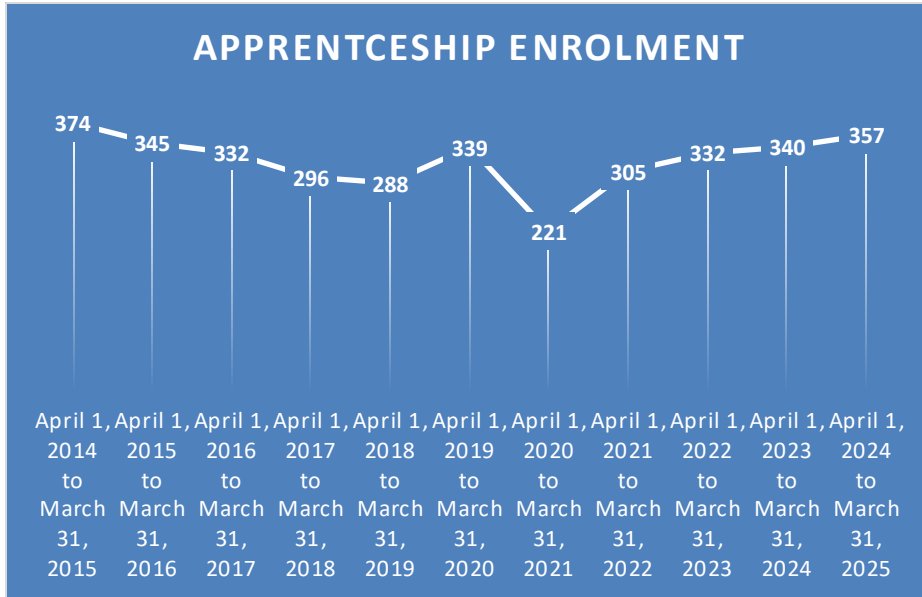
- Currently averaging 600 C of Q exams province wide weekly (Not including final level completion tests).
- On track to have 9000 C of Q exams written by the end of August
- STO reports a 20% increase in pass rate for first attempt C of Q exams since returning to the final day of training testing.

# Skilled Trades Ontario (STO)



- Area office is now open and in office 268 in the Dorion Building
- STO and Confederation College working together for C of Q testing (currently Thunder Bay and Kenora)
- C of Q testing is now being completed by TDA's on final day of in class training for all final levels of apprenticeship. (October 24, December 19, and March 6)

# Statistics: Apprenticeship Student Enrolment



- 2025-26 apprenticeship was approved for 424 seats in nine trades.
- Ministry had an expression of interest, and we were approved for 40 seats in 2 programs. (Electrical and Automotive)
- 2026-27 apprenticeship seating is approved at 468 seats in ten trades.

# Training Delivery Agent (TDA) for 11 Trades



- Electrician 309A and 442A Levels 1, 2, 3, 4
- Carpenter 403A Levels 1, 2, 3, 4
- Automotive 310S Levels 1, 2, 3
- Truck and Coach 310T Levels 1, 2, 3
- Heavy Duty 421A Levels 1, 2, 3
- Millwright 433A Levels 1, 2, 3
- Welder 456A Levels 1, 2, 3
- Plumber 306A Levels 1, 2, 3
- Roofer 449A Levels 1, 2
- Cook Levels 1, 2

# Changes to Apprenticeship Technical Training

- Electrician 309A and 442A
  - After September 1, 2026, only 4 level training will be offered
- Carpenter 403A
  - Starting on April 1, 2027, four level technical training will be phased in.
  - April 1, 2027 – New Level 1 curriculum
  - April 2, 2028 - New Level 2 curriculum
  - April 2, 2029 - New Level 3 and 4 curriculum

# In Development 2027-28

Future TDA's



- Plumbing 306A Levels 1, 2, 3
- General Machinist 429A Levels 1, 2, 3
- Instrumentation and Control Technician 447A Levels 1, 2, 3
- Metal Fabricator 437A Levels 1, 2, 3
- Power Line Technician

**2025-26**

**2026-27**

Trades post-secondary programs



- Motive Power Automotive Technician
- Motive Power Heavy Duty
- Mechanical Engineering
- Electrical Engineering
- Carpentry and Renovation Techniques
- Welding Techniques

# Embedding Apprenticeship Standards

- Level I, II, III Industrial Millwright 433A embedded into Mechanical Engineering Technician Diploma
- Embedding Level I Automotive Service Technician 310S into Motive Power – Automotive Certificate
- Embedding Level I Heavy Equipment Technician 421A and Truck and Coach 310T into Motive Power – Heavy Equipment Certificate

## Embedding Apprenticeship Standards Cont'd

- Level I & II Construction Electrician 309A and Industrial Electrician 442A into Electrical Engineering Technician
- Level III & IV Industrial Electrician 442A into Electrical Engineering Technologist
- Level I General Carpentry 403A into Carpentry & Renovations Techniques Certificate

# How can employers participate in skilled trades development

- Volunteer time for a college Program Advisory Committee (PAC)
- Support employment gaps in trades by using the apprenticeship program
- Encourage apprentices to attend Technical Training, Statistics Canada reported the certification rate (completing apprenticeship programs within the expected duration) in 2024 was 19.9% up 1.1% from 2023.
- Support trades initiatives with letters of support for the college when applying for TDA's
- Donations of equipment or materials to college programs

# How to become an apprentice?

- Find an employer who is willing to hire and train.
- If 18+, submit an online application for a Registered Training Agreement through STO. Minors must submit a paper application in person to their local Ministry office (OYAP students).
- The newly registered apprentice is then put into the training queue. After a period of field work, they become eligible to receive a seat offer. This cycle repeats until they have completed their classroom and on the job training objectives. Ministry would prefer to have eight months between finishing a level of training and starting the next level of training.
- The Ontario Youth Apprenticeship Program can help high school students start training to be an apprentice while completing high school.

A photograph of two industrial workers in a factory. The worker on the left is seen from the back, wearing a yellow hard hat with a headlamp and a grey safety vest. The worker on the right is in profile, wearing a white hard hat with a headlamp and an orange safety vest with reflective stripes. They are standing in a large industrial space with metal beams and machinery. A white rectangular box is overlaid on the center of the image, containing text.

*This is*

**OPPORTUNITY  
KNOCKING**

# Workforce Development

Carol Cline

Associate Vice President, Workforce Development

# What is Workforce Development

Continuum of service delivered through:

Contract Training- Industry Specific and customized training

Northwest Employment Works – Employment

Regional Campuses- Post Secondary and Contract Training

Distance Education and Continuing Education- Community programs and Micro-credentials

Academic Upgrading Grade 12



# What Workforce Development Brings



## Program design, curriculum development, and quality assurance

Expertise to design comprehensive programs, develop relevant curriculum, and ensure high-quality training delivery.



## Access to labs, equipment, classrooms, and support services

Access to well-equipped labs, modern classrooms, and a range of student support services across the region and within communities.



## Credentialing, administration, and delivery coordination

Custom credentialing process, coordinate program administration, and extensive experience in training development and delivery logistics.



## Workforce recruitment through community networks

Strong connections with local communities to recruit suitable candidates to training programs along with employment screening, onboarding and supports through Northwest Employment Works

# Contract Training Division

## Industry

Faster hiring, lower recruitment and mobilization costs, job-ready workers

## Confederation College

Reinforced role as the northern leader in industry training

## Communities

Local training leads to local jobs and supports reconciliation

## Regional Impact

Enhanced capacity for critical infrastructure to support many industry projects

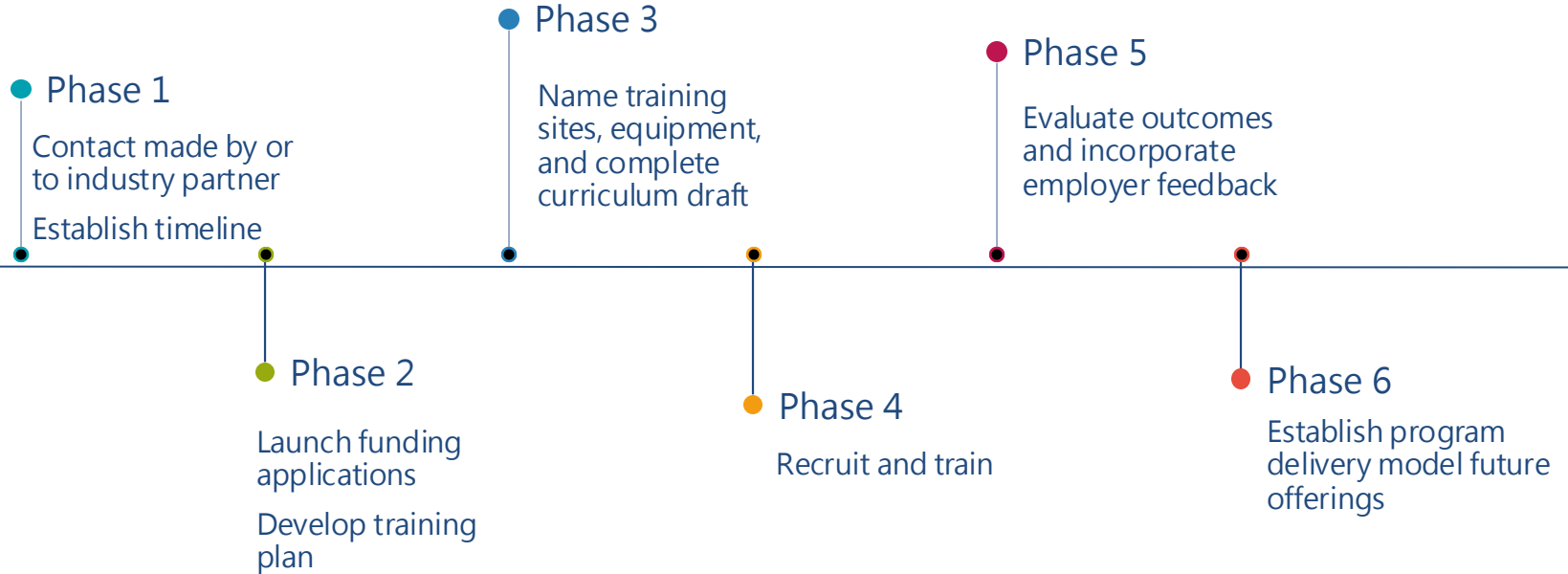
**Confederation College has been developing and delivering training products to industry and communities since 1967.**

# Customized Training and Delivery Models

- Mining
- Trades/ Pre-apprenticeship
- Forestry/Biomass
- Health
- Transmission lines
- Clean Drinking Water and Wastewater management
- Transportation



# Industry Engagement



# Contract training impact Examples

- East West Tie transmission line- 250 +
- Greenstone Gold Mine- 200+
- Waasagin Transmission Line 130+ to date
- Skills Advanced Ontario PSW 250+
- Fast Track Nursing- Ministry of Health 40
- Driving school regional high schools
- Women in trades Pre-apprenticeship
- AZ/DZ Truck Driver Training
- Oshki Wenjack - plumber and carpentry
- VR development –mining readiness and training



# Newest Projects and Partnerships



- Alstom & Thunder Bay Pulp and Paper
- St. Joseph's Care Group
- Talent without borders- nursing and trades
- Kinross Gold/Shared Spirits/Red Lake
- Ring of Fire Road Construction
- Hydro One Satellite TDA Power Line Technician
- Nuclear Waste Management
- Thunder Bay Port Authority
- 15 Skills Development Fund Applications 2026-2027



*This is*

**IMMERSIVE MINING  
TRAINING**

# Conclusion

With our comprehensive ability, infrastructure, and community reach, **Workforce Development** is well-positioned to serve as the ideal partner in delivering high-quality, industry-aligned training programs that address the workforce needs in Northwestern Ontario.



# Key Takeaways

## 1. Confederation College is a regional workforce engine

- Graduates enter high-demand sectors across Northwestern Ontario
- Training aligned with mining, energy, infrastructure, health, and technology needs

## 2. Partnerships are the foundation of our success

- Collaboration with industry, communities, and Indigenous Nations
- Applied research and workforce development built around real regional challenges

## 3. Skilled trades and workforce development are essential to “Building Ontario”

- Growing apprenticeship training and industry-led programs
- Supporting major regional projects and infrastructure investment

## 4. The North’s success depends on working together

- Employers, communities, and governments all play a role
- Confederation College is proud to be your **training and innovation partner**

# Questions?

