

Electrical Articulation Committee (EAC) Annual Meeting Minutes

Dates: June 11–12, 2025

Location: Camosun College Interurban Campus

Chair: Jeremiah Williamson (Okanagan College)

Co-Chair: Trevor Petr (North Island College)

Attendees:

Carmen de Goey – Camosun College
Shane Dalager – Vancouver Island College
Todd Leskie – Okanagan College
Nathan Chapin - BCIT
Clarence Burlock - BCIT
Michael Burgess – College of New Caledonia
Dave Murdoch - College of the Rockies
Mason Dragovan – Thompson Rivers University
Mike Turley – Thompson Rivers University
Jason Schapansky - Thompson Rivers University
Cameron Thiessen – Coast Mountain
A.J. Wearmouth – Selkirk College
Andy Amboe – Northern Lights
Baldev Pooni - Thompson Rivers University
Steve Frechette – Camosun College
Steven Dockery – Kwantlen Polytechnic University
Mike Mann - Kwantlen Polytechnic University
Minute taker – Ruth Walker-Duncan Camosun College

1. Call to Order, Introductions and Etiquette

Meeting was called to order by Chair Jeremiah Williamson, with a reminder of meeting etiquette. Introductions from attendees followed.

2. Message from Camosun College Dean's office

Welcome from acting Dean Michelle Brown via Teams.

3. Institutional Reports

Verbal reports were given in conjunction with written reports. See attached.

4. Challenges and Success in Training

Successes:

- Some institutions hosting dedicated women/girls in trades workshops.
- BCIT Skills Canada competitors won gold at BC and national levels.

Key Challenges:

- Standard Level Exams (SLEs): Extremely low pass rates; questions are overly difficult and wordy; many issues with invigilation.
- Some institutions feel that there is not enough time to deliver all content within the curriculum, especially level 3.
- Staffing and Hiring: Hard to find reliable substitutes; lengthy hiring processes.
- Student Preparedness: Poor reading comprehension and insufficient field experience.

5. Vendor Presentation – Festo Didactic

Greg James presented on new Festo equipment with a focus on;

- Educational tools for automation and motor control.
- Motor control kits, smart grid training systems, EV charging station simulators.
- Digital courseware (Festo LX) with cost-effective subscriptions.
- There will be a product referred to as Electeo replacing the facet systems, however there will be continued support for Facet trainers for institutions that are currently using them.

6. Siemens – Keith Grange, Western Canada Regional Sales Manager

Keith was unable to be in attendance.

7. Tech Safety BC/ Safety officer's presentation

Discussion of common code non-compliance violations.

Discussion of some new rules within the 2024 CEC such as hot tub bonding, equipotential bonding, and continuity of armoured cable.

8. 2024 CEC discussion – EAC members

Discussion of CEC Table D3 usage, insulation ratings, and voltage drop calculations.

Action item – The curriculum subcommittee to clarify D3 interpretation with STBC, CSA, and other provinces.

9. Curriculum Sub - Committee Update (Myles) – Review subcommittee Objectives

New SharePoint site launched for collaboration; each institution encouraged to contribute.

Curriculum subcommittee to work with BCIT regarding corrections to the British Columbia electrical student resources.

Currently feedback is through a spreadsheet specific to each level, and there is a possibility of a future website for ease of identification of errors.

The subcommittee first scheduled meeting is the 10 July.

10. Update on status on BCIT Student Resource Project – Clarence Burlock

New curriculum packages priced around \$225.

Plans for digital versions.

Plans for an ongoing errata.

There is a plan to include Blueprints for each level. Some schools will explore the possibility of providing prints of their own buildings.

Action item – curriculum subcommittee to gather topics to include in the future BC foundation package.

11. Electrical Curriculum, Apprenticeship and Foundation

There was some discussion of moving line items between year.

12. Skilled Trades BC (STBC) Updates – Vern Webber

- RSOS workshops set for 2027 (Construction) and 2028 (Industrial).
- Red Seal exam item bank refresh planned for January 2026.
- Standard Level Exams (SLEs) remain mandatory; inconsistencies in invigilation are causing student stress.
- Vern to take back questions from articulation committee for clarification.

13. Terms of Reference for Chair and co - Chair of EAC

There was concern about having a delegate speaking on behalf of all the colleges, and about creating a term of reference for the chair & co-chair.

Action Item – to draft a terms of reference for the chair and co-chair positions. Anyone interested in participating to contact Trevor. An email will be sent prior to the group meeting.

14. System Liaison Person (SLP) Report (Baldev)

Report attached.

15. Minutes

Minutes will be distributed, and you will have one month to respond with any errors or omissions. After one month they will be officially adopted.

16. Co - Chair Election

Nathan Chapin was nominated by Trevor Petr as new Co-chair, Nathan stepped out of the room, and the motion to elect Nathan Chapin to co-chair was passed.

17. Next Years Host Institution

BCIT volunteered to host, with Selkirk as the backup school.
Camosun shared that their Red Seal grads are being recognized at convocation

18. Adjournment

Motion to adjourn by Mike Turley
Seconded by Clarence Burlock
Motion was passed.

BCIT – Clarence Burlock

BCIT continues to be extremely busy. For the Term 2025 to 2026 we are delivering over a 100 classes comprised of Apprenticeship, Foundation and Security Technician classes. We currently have 45 full time Instructors to deliver the training. Student load is still placing an increasing demand on lab equipment, and we are continually updating our labs to address this issue. In addition to the full-time programs BCIT also offers many Part time studies and Industry service courses including;

ACIM (Automated Controls Installation and Maintenance)

REESIM (Renewable Energy Systems Installation and Maintenance)

High Voltage

FSR Code classes

Completed the addition of two more remote campuses for foundation and year 1. One is in Vancouver (Gladstone) and one is in Surrey (Tamanawis).

As of next week, we will have completed the update for all 4 years of the apprenticeship modules.

Couple of upcoming projects that we will be working on:

Creating a set of modules for the electrical foundation program

Creating an industrial foundation program that can ladder into a degree.

building a 10000 sf addition to our building designated an automation labs

part of a 10 million dollar government grant that we won in partnership with Wjets to deliver renewable energy electrical training.

We had our foundation student Eric Wu win the National Automation competition in trade 19 and he will be competing in the world competition in China in 2026.

Future ideas

Create labs that all schools can use



CAMOSUN COLLEGE ELECTRICAL DEPARTMENT REPORT MAY 2025

Camosun College is located in beautiful Victoria, British Columbia with campuses on the Traditional Territories of the Lekwungen and WSÁNEĆ peoples. We acknowledge their welcome and graciousness to all who seek knowledge here.

- Drastic financial changes and hardship in the Institution due to the Federal governments decision to cap International student enrollments. Downsizing as much as possible with the intention not to reduce classes or impact students.
- School of Trades & Technology has been dissolved (end of March 2025)
- New school created – “School of Trades, Industry & Professional Studies” (April 2025)
- 5 Foundation and 32 apprenticeship (including 2 Corrections Canada - Prison deliveries) **base** Training Plan classes for Fiscal 2025 – 26 including:
 - o 4 High School Dual Credit Apprenticeship (1 In House, 3 Mainland Cohorts)
 - o 2 sessions of TASK – Trades and Skills Knowledge (high school trades sampler)
 - Claremont, Frances Kelsey, Independent Learning Center, Edward Milne, Royal Bay
 - o WITT – Women in Trades Training Sampler (on hold/cancelled) – no funding
 - o IPTT – Indigenous People in Trades Training (on hold/cancelled) – no funding
 - o South Island Partnership (SIP) – 16 dedicated seats total in Foundation
- Camosun has 14 fulltime continuing Instructors and 6 term instructors
- Our department has a Chair - Carmen deGoey, and a Program leader for the Foundation Program – Justin Smith. We have one Lab Technician, Luigi Micco who is a Red Seal Certified Electrician, builds/updates/maintains equipment and supports students and Instructors. Lui takes care of the main purchasing needs of the Department and works closely with the Chair on Departmental Budgets
- Current student challenges are:
 - **Cost of living and inflation** driving food/living costs up is extremely difficult for apprentices and foundation students
 - o Food Pantry located in each Department, accessible to all students.
 - **For apprentices to be eligible to write STBC exams, apprentices need up to date accounts** - STBC Direct Access Accounts for apprentices – most common issues include Inactive, unsponsored, incorrect spelling of names, invalid gov issued ID etc.
 - **Student Resources – not up to date** and out of order. Adding additional costs to the students and extra work for Instructors/Department to sort through the levels for correct curriculum in the “ITA Binders”
 - **Foundation seats – long wait times**
 - **Apprenticeship Courses – long wait times** - student numbers are up, and utilization is high. This could be due to a slight lull in Industry and/or large number of apprentices in the system, locally
 - **Employment Insurance Issues** – haven’t heard as many issues lately
 - **Classroom management challenges** – Attendance. Wondering if apprentices are working and attending classes simultaneously?
 - **Success rates on the Standard Level Exams** – 1 & 2 have improved after development of the exams.
 - o Low level pass rates for students scoring 70% – 75% (In School Grade)
 - **Level 3 SLE pass rates** updated for **June 2025** meeting (Dec 2024 - March 2025)
 - o 4 level 3’s
 - o 48% - 60% class average
 - o 9 students passed the SLE out of approx. 64 students
 - o 0 students failed the level
 - o Individual student overall grade is dropped between 5-8% due to SLE



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- **Managing illness and absences** of students, Faculty and staff. Providing alternate strategies to keep the classes on schedule and supports in place for the students. Classes have normalized however absences due to illnesses have been challenging. Make up exams for students and Instructor coverage have been challenging... Continued

Updates:

- Level 1, 2 & 3 Standard Level Exams (SLE's) are now all implemented.
- Level 1, 2 & 3 are now challengeable <https://skilledtradesbc.ca/challenge-level-exam>
- **student feedback** is that the majority were more successful and prefer face to face learning.
- We (Department) officially Implemented the Cengage Customs (Mullin Text Books, Residential, Commercial & Industrial) in level 1 (required) and levels 2 & 3 optional. Rationale - try to improve Canadian Electrical Code resources for our students. Purpose; to fill the gap of missing content in the harmonized binders and better prepare students for their Standard Level Exams (SLE) and Red Seal Certification.
- The 2024 CEC has been released (**March 2025 Adoption**) All levels are being delivered on the 2024 CEC for late Summer and Fall.
- Curriculum development (updating to 2024 CEC) on student resources, Instructional resources and exams
- Parts of the Foundation Program is blended with remote classroom sessions (in the first 5 weeks only) however the majority is face to face delivery.
- Apprenticeship courses are all 100% face to face delivery.

Lab/Demos Work in Progress to Update:

- High Voltage & BC Hydro Pole with associated equipment – Services, connections etc. Completed
- Cantruss (Strut) Labs – mounting, fittings, assortment of updated panels. Completed
- Slab Demo – concrete boxes, fittings, coreline etc. – in progress
- Fire Alarm Stations – troubleshooting (level 4 mostly) - in progress
- Updated Meters – Fluke clamp on meters (mostly Foundation) Completed
- Thermal Imaging – have the meter, developing demo - Completed
- Planning Stages – Solar Demo

Prepared by:

Carmen deGoey | Red Seal | FSR B | Chair

Electrical | School of Trades, Industry, and Professional Studies

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CAMOSUN COLLEGE | Victoria, BC | camosun.ca

Electrical Institutional Report for Coast Mountain College 2024/2025

This last year has seen steady enrollment and continued growth in our Electrical Department.

We currently have 3 full time Electrical Instructors and 1 term Instructor to satisfy work load requirements.

In the last year, our department has run the following:

- 2 - Foundation classes
- 1 - Level 1 Apprenticeship class
- 2 - Level 2 Apprenticeship class (1 in person + 1 blended)
- 1 - Level 3 Apprenticeship class
- 1 - Level 4 Apprenticeship class

The North Coast economy is still growing in the housing, commercial and port sectors. Projects such as LNG (Kitimat) and the new Hospital (Terrace) are slowly coming to completion and having reductions in workforce. Fewer students coming out of Foundation classes are walking straight into jobs of preference immediately after class completion.

There continues to be opportunities for our apprentices to find work when willing to travel and accommodate to required locations.

Cameron Thiessen, RSE FSR B
Electrical Instructor
Coast Mountain College
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CNC Institution Report for 2025 EAC

1. 2024-2025 Course Deliveries:
 - 2 of Foundations
 - 1 of CTC
 - 2 of Year 1
 - 3 of Year 2
 - 3 of Year 3
 - 2 of Year 4
2. 2025-2026 Course Deliveries:
 - 2 of Foundations
 - 1 of CTC
 - 2 of Year 1
 - 2 of Year 2
 - 3 of Year 3
 - 3 of Year 4
3. We have 5 full time Electrical Instructors:
 - Blair Rice
 - Lorne Maruk
 - John MacMillan
 - Christien Goudreau
 - Mike Burgess (Coordinator)
4. We will be hiring a new Tool Tech this summer as Brian is retiring
5. We are currently looking for a new Dean of Trades
6. We are currently looking for a new Associate Dean of Trades
7. We are seeing strong numbers of students in all course deliveries
 - Our classes have a capacity of 16 students
 - We currently have waitlists for the following programs:
 - Foundation (Aug-2025) - 11
 - Level 1 (Oct-2025) – 3
 - Level 3 (Oct-2025) – 8
 - These programs are full but don't have anyone on the waitlist yet:
 - Level 2 (Jan-2026)
 - Level 2 (Mar-2026)
 - Level 3 (Mar-2026)

8. We are in the process of upgrading our electrical shop
 - Improving organization
 - Improving hand and power tool quality to meet evolving industry standards
 - Continue to maximize the potential of our Lab-Volt equipment

12 month report from June 2024 to June 2025:

Number of instructors:

- four full time instructors.

Foundation Classes :

- two intakes of 24 weeks each : August to Feb, and Feb to July

Number of apprenticeship courses:

- five harmonized apprenticeship courses consisting of one 1st year, two 2nd year, and two 3rd year
- one 4th year construction intake.
- one 4th year industrial intake.

Trade Samplers:

- one high school trade sampler (two weeks)
- one woman's trade sampler (two weeks)
- one single day grade nine discover trades sampler

Numbers:

- both foundation courses have been full
- Apprenticeship classes have been ranging from 14 students to 16 students,
- Currently, all our classes in the fall have wait lists
- Average about 90% capacity on apprenticeship, with 100% capacity forecast for the next 12 months.
- Both sampler programs are full.
- We have had low numbers in 2023 and 2024 for the 4th year industrial. The 2025 intake starting June 2nd is full.

Other items:

- Lab volt equipment has been updated , including metering and software packages
- Currently using module package for all 4 years. Very much support for the BCIT packages
- We have a new Dean of trades and technology
- We have new department head of trades

Any questions, let me know. Thanks

Dave Murdoch

KPU Articulation Institutional Report 2025 (April 1, 2024 – March 31, 2025)

We currently have 10 full-time instructors (two are on long-term leave), 1 part-time instructor and 5 term instructors.

We ran our standard 18 apprenticeship classes and six foundation classes (one at Howe Sound Secondary).

We no longer offer the Mechatronics Programming at KPU due to low enrollment numbers.

We continue to work with the EJTC to provide some courses as they require intakes. Our administration continues to work diligently to further the Youth Train in Trades program offerings and also has begun partnering with private schools and home school programs.

Most recently we have been partnering with some penitentiaries to offer courses to inmates. We hope to have this running by the end of this fiscal.

This past year, we completed practical labs for Nurse Call Systems, PLC's (Siemens and Click PLC), Traffic Light Controls, and Fire Alarm (addressable and non-addressable). We also completed Phase 1 of our shop/lab renovation providing us with a new lab space and one refurbished lab space. We are now in the process of phase 2 which is refurbishing the foundations projects space, the Data/Communications space, and the High-Voltage space. Lastly, we recently completed updating all code assignments, quizzes, and exams to the new 2024 CEC.

We are undergoing an unofficial program review in all four levels to address attendance issues, SLE/IP results, student resources, and challenges with allotting the appropriate time to theory instruction and practical components especially in Level 3. We are very excited to review and hopefully implement the use of the new student resources that BCIT is currently working on.

Mike Mann

Instructor/Chair Electrical

NIC Institutional Report

2024/25

We currently have four FT instructors, one sessional, and one technician. Its been a steady year, we have run about the same quantity of courses as normal.

Last year we facilitated the following classes

- Foundations x 3
- Level one x 2
- Level two x 2
- Level three x 2
- Level four x 2

Some of the issues that we have run into this year

- Low results on 3rd year SLE.
- Wait lists are growing, unfortunately doesn't seem like additional funding is available to clear up waitlists.

We have also been implementing some of the recommendations that came out of our program review from last year, engaging industry more, such as PAC's, creating common brightspace shells for each of our levels.

Best regards,

Trevor

Institution Report

2024/2025

Northern Lights College Electrical Department*Institutional report for 2024/2025 Technical Training**Prepared by: Andy Amboe**Reviewed by: Mike Dwojak**April 14, 2025***In The Electrical Department:**

Student numbers continue to grow in the region with strong employment in the Oil and Gas sector, and forestry, as well as a decent level of installation and repair on commercial and residential installations.

The most recent assessment shows **196 active electrical apprentices** in the region at this point in time. Foundation Electrical classes continue to fully populate with approximately 30% of students being dual credit learners.

This academic year has seen NLC remain at 2 full time instructors and no additional classes added to accommodate the very large number of students looking to attend technical training.

Summary of technical training numbers for 2024/2025:

Level 1 Sept/24 -16 students 15 wait-listed

Level 4 Sept/24 -16 students 5 wait-listed

Level 3 Jan/25 -16 students 8 wait-listed

Foundation Feb/25 - 16 students – 5 of which are dual credit students

Level 2 Apr/25 – 16 students 11 wait-listed

This represents **64** apprentices receiving their level training, and **16** students receiving Foundation Electrical training.

In the Region:

With the added demand from industry to get apprentices through technical training, we are currently looking to add an additional class for Level 2 in the fall. (Waitlists support additions in all levels.)

All classes are now full through 2026 and with students registering for 2027 in all four years of school.

With the long wait times students are experiencing, we are starting to see more and more learners going to institutes in the south for one or two levels, just to stay on track with their apprenticeships.

Harmonization has also added a new facet to student retention at NLC for trades. With several of the major contracting companies in Fort St John being E and I and also Alberta based;

students are exploring the option of attend technical training in Alberta. (following what Instrumentation has already done).

Northwestern Polytechnic is just 2.5 hours away in Grande Prairie making it the closest place for trades training in our region outside of NLC. and with a new 16-million-dollar process lab that will be ready for September 2025, NWP will service much larger student numbers in Instrumentation, Electrical, Power Engineering and as a side note, also Nursing.

The BC Hydro Site C hydroelectric generating station is producing power for the province 4 of the 6 generators are online as of April 2nd, 2025. 4th year electrical classes routinely visit one of the hydroelectric facilities as part of technical training at NLC. With Site A (GM Shrum), Site B (Peace Canyon) and now Site C all options for field trips, students are exposed to a much larger picture of industry options for employment and BC Hydro has been very receptive to hosting trades classes in the facilities.



Although not specifically in our region but directly connected to it, LNG Canada in Kitimat is scheduled to ship its first cargo in mid-2025. The natural gas for this endeavor begins its journey from the Montney Shale Basin on the eastern side of the Rocky Mountains of North-Eastern BC and Northwestern Alberta coming from an area that is 130,000 square kilometres. This is the primary driver for the majority of the trades in the region with installation and repair of oil and gas development and production.

Respectfully,



Andy Amboe
Instructor, Electrical Program
Fort St. John Campus
Email: aamboe@nlc.bc.ca

OC Institutional Report to the Electrical Articulation Committee (June 2025)

2024-2025 Intakes:

Electrical courses offered at OC this year were as follows:

Foundation (ELTT): 5 intakes (2 in Kelowna, 1 at each of our 3 satellite locations)

Apprenticeship: 20 classes

Level 1 Apprentice: 5 classes (one double-intake)

Level 2 Apprentice: 7 classes (two double-intakes)

Level 3 Apprentice: 4 classes

Level 4 Apprentice: 4 classes

Success Rates 2024-2025:

Apprenticeship:

Level 1 SLE: 62% Pass Rate

Level 2 SLE: 62% Pass Rate

Level 3 SLE: 47% Pass Rate

Level 4 IP: 77% Pass Rate

Staffing:

At the beginning of the year we were 5 full-time and 3 non-regular (term) instructors.

In August, OC officially absorbed the SD23 program previously offered by BCIT out of the Quigley location. With this came one non-regular position, which continues to be held by the pre-existing instructor; for the remainder of the year, this position is filled out with Trades Sampler offerings.

In the latter half of 2024, OC made a significant shift in locational Electrical apprenticeship offerings in the valley. OC has stopped offering Electrical apprenticeship courses in the Southern Okanagan and will only be offering Foundation. Salmon Arm will no longer offer electrical foundation courses either. With these changes, OC began offering apprenticeship training (Levels 1 and 2) out of our Vernon campus. In the new year, we regularized 1 term appointment out of our Vernon campus at 100% and we have since brought on an additional non-regular instructor in that region.

Current staffing stands at 6 FTEs and 5 term (non-regular) appointments. At this time there are no posting for employees.

This year we saw an increase in our lower levels of apprenticeship training, as we offered double-intakes of both Levels 1 and 2; this was, in part, due to the shift in course offerings in the Northern region.

Outside the Electrical department:

There have been some organizational changes this year that impact the electrical department. The Dean's office has been restructured and there are now two Associate Deans out of the Kelowna campus, each one responsible for half of the Trades training offered at OC.

On the Horizon:

There are currently 20 apprenticeship intakes scheduled for 2025-2026; no change from 2024-2025. Using this year as an indication of enrolment, we expect all of these projected courses to run with all seats filled. Demand for Foundation (ELTT) programing has been notably high and OC intends to add a sixth intake for the coming year.

While additional courses this year reduced our waitlists, we are currently still waitlisting students for one full year.

Lastly, our Dean of Trades has announced his retirement and that position is currently posted. New leadership will inevitably bring change and hopefully new opportunities as well.

Selkirk College

Report to Articulation June, 2025

Workload:

- We employ 3 full time regularized instructors.
- We teach 6 apprenticeship courses and 2 foundation courses annually. We also had a YETS program run this year and there is a 3rd intake of foundation starting in the fall.

Issues:

- Invigilators for SLE exams have become a big issue for students. *Multiple times* they have arrived much later than the scheduled exam time (by hours) and have **started to erase student code books**, even though the markings in the code books are acceptable to STBC regulations. This is unacceptable treatment of our students in an already stressful time. Perhaps better training for the invigilators is required (they don't seem to know the difference between an SLE and IP exam)
- Students writing the 3rd year SLE are still failing the exam when there does not appear to be a reason for it as their in-school grades reflect their understanding for electrical theories and concepts.
- Pass rates on the IP are still quite low. The disconnect between the exam and the program outline hasn't yet been fully identified within Skilled Trades BC and are reflected on the IP results.
- Outdated modules continue to be an issue for both students and instructors. Topics have been moved around and access to these modules is difficult. The content in the STBC modules is also outdated (Code rules, incandescent lighting, etc).
- Students who have taken previous training in another province have (substantial) learning gaps For example, a student taking level 2 in Alberta and level 3 in BC, would be missing transformers, electronics, lighting, etc. This issue has not yet been addressed by STBC.
- PLC program cost and compatibility with windows 11 (Rockwell not supporting W11 programming for the free version) is problematic. The cost of a Rockwell license is too great for our small school, and we are struggling with finding a viable solution that is not a simulation.

Positives:

- Our regional STBC rep (Marlin Ratch) has continued to make regular in-person visits to our campus.
- We have recently hired 4 new electrical relief instructors.

TRU Institutional Report

April 1st 2024 – March 31st 2025 (Kamloops and Williams Lake)

- Number of FT and Sessional faculty – Full Time 11, 1 Sessional
- Number of classes broken down by level
 - Foundation 5 (same)
 - Level 1 – 5 (same)
 - Level 2 - 7 (increase of 1)
 - Level 3 - 6 (increase of 1)
 - Level 4 - 4 (decrease of 1)
 - Industrial Level 4 - 1 (same)
- Name and number of sampler programs
 - Norkam Construction Sampler 2
 - Norkam Industrial Sampler 1
 - WITT 3
 - GETT and Try a Trade days 2

Other courses taught by electrical faculty

- Power Eng. 1
- Water Treatment 3

Institutional Report – Vancouver Island University (VIU) 2024–25

During the 2024–25 training year, VIU is delivering 12 Electrical Apprenticeship intakes and 3 Foundation-level intakes.

Facility limitations continue to challenge program delivery. Nonetheless, we are proceeding with full offerings. The university is currently reviewing overall programming, with possible suspensions or cancellations that may allow us to access additional space elsewhere on campus. If reallocation occurs, we aim to repurpose some of our classroom space for electrical lab use. WE are awaiting confirmation on a proposed new trades building, which would feature a covered lab area to better support all components of our Foundation program.

To meet instructional needs, we have staffed six experienced instructors, including a recent hire from BCIT. However, like many institutions, we continue to face challenges in recruiting qualified relief instructors who are capable of teaching across all four levels and Foundation.

We have also increased our efforts to promote the trade among youth by partnering with local high schools. This year, we are offering **five short introductory sessions** in the electrical trade to **several secondary schools in the Nanaimo area**. These outreach events provide hands-on exposure to basic electrical concepts and tools, helping to generate interest and awareness among potential future apprentices.

Use of our Learning Management System (LMS) for quizzes, assignments, and online exams continues to improve efficiency and reduce reliance on paper-based testing. This has freed up additional classroom time for instruction. Level 4 students continue to complete a minimum of four proctored, in-person exams to ensure preparedness for the Interprovincial Red Seal Examination (IPE). As well the level 4 students are using the CSA, IPE prep App on a daily basis giving them greater exposure to IPE material.

We are also in the early stages of exploring the integration of **virtual reality (VR) software and computer-based simulation tools** into our curriculum. This technology would complement existing hands-on training, offering immersive learning scenarios such as hazard recognition, complex circuit diagnostics, and remote worksite simulations. The goal is to provide a more well-rounded, future-ready program that reflects the evolving needs of 21st-century electricians.

In addition, we are pleased to report the re-establishment of our **Program Advisory Committee (PAC)** after a hiatus during the COVID-19 pandemic. The PAC will play a key role in reconnecting with industry partners, ensuring that our curriculum aligns with current field practices, technological advances, and regional labor demands.

We remain committed to maintaining instructional quality, program relevance, and flexibility as we adapt to industry trends, learner needs, and institutional challenges.

SKILLED**TRADES**^{BC}

**ELECTRICAL ARTICULATION
COMMITTEE
SkilledTradesBC Update**

June 12, 2025

Construction Electrician and Industrial Electrician

Red Seal Exam Updates

The 2024 CEC will be implemented for the Construction Electrician and Industrial Electrician Interprovincial Red Seal Examinations in June 2025. Both the Construction Electrician and Industrial Electrician Interprovincial Exams are now compliant with both the 2021 and 2024 versions of the CEC. SkilledTradesBC will provide the 2024 CEC to candidates writing their Construction Electrician or Industrial Electrician Interprovincial Red Seal Examination on or after June 1, 2025. SkilledTradesBC will continue to provide the 2021 CEC to candidates writing their Construction Electrician or Industrial Electrician Interprovincial Red Seal Examination until May 31, 2025.

An Item Bank workshop for the Construction Electrician trade in Ottawa on January 26-30, 2026.

In the Fall, SkilledTradesBC will approach the Electrician System Liaison Person (SLP) for assistance with sourcing an instructional participant for the workshop.

Red Seal Exam stats

Construction Electrician RED SEAL EXAM Breakdown

The current Construction Electrician Red Seal Exam is based on the 2021 Red Seal Occupational Standard (RSOS) and consists of the following breakdown:

MAJOR WORK ACTIVITY	# OF QUESTIONS
A – Performs common occupational skills Task 1 - Performs safety-related functions Task 2 - Uses tools and equipment Task 3 - Organizes work Task 4 - Fabricates and installs support components Task 5 - Commissions and decommissions electrical systems Task 6 - Uses communication and mentoring techniques	11 2 2 2 2 2 1
B – Installs, services and maintains generating, distribution and service systems Task 7 - Installs, services and maintains consumer/supply services and metering equipment Task 8 - Installs, services and maintains protection devices Task 9 - Installs, services and maintains power distribution equipment Task 10 - Installs, services and maintains power conditioning, uninterruptible power supply (UPS) and surge suppression systems Task 11 - Installs, services and maintains bonding and grounding, and ground fault protection and detection systems Task 12 - Installs, services and maintains power generation and conversion systems Task 13 - Installs, services and maintains renewable energy generating and storage systems Task 14 - Installs, services and maintains high-voltage systems Task 15 - Installs, services and maintains transformers	28 4 4 4 2 4 2 2 2 2 4
C – Installs, services and maintains wiring systems Task 16 - Installs, services and maintains raceways, conductors, cables and enclosures	30 9 9

Task 17 - Installs, services and maintains branch circuitry and devices	
Task 18 - Installs, services and maintains heating, ventilating and air-conditioning (HVAC) systems	4
Task 19 - Installs, services and maintains electric heating systems	4
Task 20 - Installs, services and maintains exit and emergency lighting systems	3
Task 21 - Installs, services and maintains cathodic protection systems	1
D – Installs, services and maintains motors and control systems	21
Task 22 - Installs, services and maintains motor starters and controls	8
Task 23 - Installs, services and maintains drives	4
Task 24 - Installs, services and maintains motors	6
Task 25 - Installs, programs, services and maintains automated control systems	3
E – Installs, services and maintains signalling and communication systems	10
Task 26 - Installs, services and maintains signalling systems	4
Task 27 - Installs, services and maintains communication systems	3
Task 28 - Installs, services and maintains integrated control systems	3

BC Construction Electrician Red Seal Exam Stats

BC apprentice statistics are for first time writes for those writing with a class

Construction Electrician IPSE – aligned to 2021 RSOS	
	2024 ¹
BC Apprentice Number of Writes	572
BC Apprentice Pass Rate	56%
BC Apprentice Average Exam Mark	70%

A Performs Common Occupational Skills	74%
B Installs, Services & Maintains Generating, Distribution & Service Systems	68%
C Installs, Services & Maintains Wiring Systems	72%
D Installs, Services & Maintains Motors & Control Systems	70%
E Installs, Services & Maintains Signalling & Communication Systems	70%

¹ 2024 statistics are from March to December

Construction Electrician IPSE – aligned to 2015 RSOS									
	2016 ¹	2017	2018	2019	2020	2021	2022	2023	2024*
BC Apprentice Number of Writes	255	942	1044	1167	1136	1055	989	822	262
BC Apprentice Pass Rate	82%	79%	77%	77%	64%	60%	71%	79%	83%
BC Apprentice Average Exam Mark	78%	76%	76%	75%	72%	71%	74%	77%	79%
A Performs Common Occupational Skills	79%	78%	79%	82%	80%	80%	83%	85%	85%
B Installs, Services & Maintains	83%	78%	77%	72%	72%	67%	71%	75%	78%

Generating, Distribution & Service Systems									
C Installs, Services & Maintains Wiring Systems	77%	79%	76%	77%	74%	75%	78%	80%	82%
D Installs, Services & Maintains Motors & Control Systems	67%	69%	73%	73%	66%	63%	66%	69%	71%
E Installs, Services & Maintains Signalling & Communication Systems	82%	78%	77%	77%	73%	75%	79%	81%	83%

¹ 2016 statistics are limited to writes of exams aligned to 2015 RSOS

*2021 bank was implemented for writes in March 2024

Industrial Electrician RED SEAL EXAM Breakdown

The current Industrial Electrician Red Seal Exam is based on the 2021 Red Seal Occupational Standard (RSOS) and consists of the following breakdown:

MAJOR WORK ACTIVITY	# OF QUESTIONS
A – Performs common occupational skills	9
Task 1 - Performs safety-related functions	2
Task 2 - Uses tools and equipment	2
Task 3 - Organizes work	2
Task 4 - Fabricates and installs support components	1
Task 5 - Commissions and decommissions electrical systems	2
Task 6 - Uses communication and mentoring techniques	0
B – Installs and maintains generating, transmission, distribution and service systems	23
	3

Task 7 – Installs and maintains utility and non/utility supply services and metering equipment	4	
Task 8 - Installs and maintains protection devices	3	
Task 9 - Installs and maintains low voltage distribution equipment	2	
Task 10 – Installs and maintains power conditioning systems	3	
Task 11 - Installs and maintains bonding and grounding, and ground fault protection and detection systems	2	
Task 12 - Installs and maintains power generation and conversion systems	1	
Task 13 - Installs and maintains renewable energy generating and energy storage systems	2	
Task 14 – Installs and maintains high-voltage systems	3	
Task 15 - Installs and maintains transformers		
C – Installs and maintains wiring systems		20
Task 16 - Installs and maintains raceways, cables, conductors and enclosures	5	
Task 17 - Installs and maintains branch circuitry and devices	5	
Task 18 - Installs and maintains heating, ventilation and air-conditioning (HVAC) electrical components	3	
Task 19 - Installs and maintains electric heating systems and controls	3	
Task 20 - Installs and maintains exit and emergency lighting systems	2	
Task 21 - Installs and maintains cathodic protection systems	2	
D – Installs and maintains rotating and other fixed equipment and control systems		21
Task 22 - Installs and maintains motor starters and control devices	7	
Task 23 - Installs and maintains drives	5	
Task 24 - Installs and maintains other fixed equipment and associated controls	3	
Task 25 – Installs and maintains motors	6	
E – Installs and maintains signalling and communication systems		10
Task 26 - Installs and maintains signalling systems	4	
Task 27 - Installs and maintains communication systems	3	
Task 28 - Installs and maintains building automation systems	3	
F – Installs and maintains process control systems		17
Task 29 - Installs and maintains input/output (I/O) devices	8	
Task 30 – Installs, programs and maintains automated control systems	6	
Task 31 - Installs and maintains pneumatic and hydraulic control systems	3	

BC Industrial Electrician Red Seal Exam Stats

BC apprentice statistics are for first time writes for those writing with a class

Industrial Electrician IPSE – aligned to 2021 RSOS	
Year	2024*
BC Apprentice Number of Writes	37
BC Apprentice Average Exam Mark	62%
BC Apprentice Pass Rate	72%
A Performs Common Occupational Skills	81%
B Installs & Maintains Generating, Distribution & Service Systems	72%
C Installs & Maintains Wiring Systems	70%
D Installs & Maintains Rotating & Non-Rotating Equipment & Control Systems	66%
E Installs & Maintains Signalling & Communication Systems	70%
F Installs & Maintains Process Control Systems	79%

*2021 bank was implemented for writes in May 2024

Industrial Electrician IPSE – aligned to 2016 RSOS							
Year	2018 B ¹	2019	2020	2021	2022	2023	2024*
BC Apprentice Number of Writes	19	42	39	35	40	33	0
BC Apprentice Average Exam Mark	73%	74%	74%	74%	75%	73%	-
BC Apprentice Pass Rate	58%	69%	67%	77%	74%	79%	-
A Performs Common Occupational Skills	78%	82%	79%	88%	87%	82%	-
B Installs & Maintains Generating, Distribution & Service Systems	77%	77%	78%	75%	74%	70%	-
C Installs & Maintains Wiring Systems	70%	72%	73%	70%	72%	73%	-
D Installs & Maintains Rotating & Non-Rotating Equipment & Control Systems	64%	69%	67%	71%	74%	74%	-
E Installs & Maintains Signalling & Communication Systems	62%	65%	62%	59%	58%	65%	-
F Installs & Maintains Process Control Systems	79%	79%	78%	78%	76%	76%	-

¹ 2018 B statistics are limited to writes of exams aligned to 2016 RSOS

*2021 bank was implemented for writes in May 2024

Standardized Level Exams

Electrician Common Core Level 1				
Year	2021*	2022	2023	2024
Number of Writes	101	414	593	686
Pass Rate	57%	47%	49%	52%
Average Exam Mark	72%	69%	69%	70%
A Apply Circuit Concepts	72%	69%	69%	68%
AA Install and Maintain Communication Systems	50%	51%	54%	51%
B Perform Safety-Related Functions	75%	71%	68%	75%
C Use Tools and Equipment	65%	57%	68%	59%
D Organize Work	87%	85%	85%	89%
G Use Communication and Mentoring Techniques	93%	90%	94%	95%
H Install and Maintain Consumer/Supply Services & Metering Equipment	80%	78%	77%	77%
I Install and Maintain Protection Devices	69%	65%	61%	64%
J Install and Maintain Low Voltage Distribution Systems	64%	68%	68%	71%

L Install and Maintain Bonding, Grounding and Ground Fault Detection Systems	78%	73%	79%	86%
Q Install and Maintain Raceways, Cables and Enclosures	70%	65%	61%	64%
R Install and Maintain Branch Circuitry	57%	56%	59%	60%

* SLEs were waived until September 2021 due to COVID-19

Electrician Common Core Level 2				
Year	2021*	2022	2023	2024
Number of Writes	285	827	1136	1283
Pass Rate	41%	45%	54%	59%
Average Exam Mark	66%	67%	70%	71%
A Apply Circuit Concepts	69%	68%	69%	70%
D Organize Work	88%	88%	87%	88%
H Install and Maintain Consumer/Supply Services & Metering Equipment	78%	82%	83%	84%
I Install and Maintain Protection Devices	85%	86%	87%	87%
L	73%	73%	79%	81%

Install and Maintain Bonding, Grounding and Ground Fault Detection Systems				
N Install and Maintain Renewable Energy Generating & Storage Systems	73%	75%	82%	84%
P Install and Maintain Transformers	57%	61%	65%	66%
Q Install and Maintain Raceways, Cables and Enclosures	61%	61%	64%	67%
R Install and Maintain Branch Circuitry	51%	52%	58%	60%
S Install and Maintain Heating, Ventilating and Air Conditioning (HVAC) Systems	47%	48%	54%	55%
T Install and Maintain Exit and Emergency Lighting Systems	64%	67%	69%	75%
U Install and Maintain Cathodic Protection Systems	60%	61%	56%	60%
V Install and Maintain Motor Starters and Controls	63%	68%	72%	72%

* SLEs were waived until September 2021 due to COVID-19

Electrician Common Core Level 3		
Year	2023*	2024
Number of Writes	264	1025
Pass Rate	15%	29%
Average Exam Mark	59%	62%

A Apply Circuit Concepts	62%	65%
C Use Tools and Equipment	45%	57%
D Organize Work	77%	76%
H Install and Maintain Consumer/Supply Services & Metering Equipment	66%	72%
J Install and Maintain Low Voltage Distribution Systems	57%	64%
L Install and Maintain Bonding, Grounding & Ground Fault Detection Systems	40%	48%
M Install and Maintain Power Generation Systems	54%	57%
P Install and Maintain Transformers	59%	62%
R Install and Maintain Branch Circuitry	59%	65%
V Install and Maintain Motor Starters & Controls	58%	59%
W Install and Maintain Drives	40%	44%
Y Install and Maintain Motors	58%	63%

*first writes took place in October 2023

Registered Apprentices

Construction Electrician

Level of Technical training completed

	Level 0	Level 1	Level 2	Level 3	Level 4	Totals
Active	3840	2475	2011	1171	1062	10199
Non-Active	2263	1016	525	256	148	4208
Totals	5743	3491	2536	1427	1210	14407

Apprentice statistics as of April 1, 2025

Level 0 = trade worker has registered as an apprentice but has not yet taken technical training.

Apprenticeship by Region

REGION	Level 0	Level 1	Level 2	Level 3	Level 4	Totals
North	360	236	175	119	49	939
Southeast Interior	890	567	478	257	183	2375
Island	810	527	390	237	285	2249

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Lower Mainland	3546	2064	1439	782	674	8505
??	75	47	16	8	11	157
Other	62	50	38	4	8	182
Totals	5743	3491	2536	1427	1210	14407

Industrial Electrician

Level of Technical training completed

	Level 0	Level 1	Level 2	Level 3	Level 4	Totals
Active	182	97	100	89	34	502
Non-Active	94	40	26	48	3	211
Totals	276	137	126	137	37	713

Apprentice statistics as of April 1, 2025

Level 0 = trade worker has registered as an apprentice but has not yet taken technical training.

Apprenticeship by Region

REGION	Level 0	Level 1	Level 2	Level 3	Level 4	Totals
North	47	30	20	20	6	123
Southeast Interior	57	38	41	39	8	183
Island	15	11	15	12	6	59
Lower Mainland	141	56	49	59	16	321
??	7	1	0	5	0	13
Other	9	1	1	2	1	14
Totals	276	137	126	137	37	713

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SLP Report to Electrical Articulation Committee – Baldev Pooni, Dean TRU School of Trades & Tech

June 12-14, 2025

Venue: Camosun College, Victoria BC

Highlights

Summary

- Provincial Group working on alignment of waitlists. Emily Cronin from PSFS leading the



WAWG Alignment
Report - May 27 2022

group. Representation from BCATTA.

The objectives of the working group:

- Foster greater coordination between public trades trainers, SkilledTradesBC, and government on addressing waitlist issues.
- Identify pressures and inconsistencies across B.C.'s public trades training system.
- Standardize application, registration and waitlist practices across public trades trainers to provide a more consistent experience for apprentices and employers.
- Increase transparency and ensure accurate data is readily available.

Advocacy Toolkit for Presidents. Convey consistent message. Priorities for Trades Training system. – Ken Armor



TTBC_2025_teaser-b
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Update on TTBC's marketing webpage and brochure– Ken Armor

Ministry looking for feedback on duplication of services between STBC and PSIs – Ken Armor.

Last year the presidents asked Ken Armor to contact CFOs to ascertain cost of trades training in BC Trades Training System compared to the funding. The response is “

BCNET interested in hearing from institutions interested in bulk purchase of supplies and Materials for Electrical and Welding. – Ken Armor (Deans to report to Ken)

Strategic Mandate Priorities Funding (SMPF). Very little distributed in 24/25. Institution warned there is like to very little or zero in 25/26. Construction Apprenticeships programs will be a priority there is any. (Electrical, Carpentry, Plumbing, Refrigeration)

The \$50M per year for Apprenticeship over three years in the NDP election manifesto will not happen. The Minister of PSFS directed to find efficiencies.

STBC staff has grown to 164 employees. ITAC was 110 employees.

There are 50,000 registered apprentices in BC. Up from 36,000 three years ago.

A number of institutions are reporting cost-cutting measures as result of financial losses from reduced international demand. Some institutions are cutting some low demand Trades programs. Early retirement Incentives Program implemented (ERIP).

OC piloting day release program for apprenticeship versus block release.

The BCIT copyright MOU agreement on Learning Resources is almost done. Other institutions wanting copyright will need to apply.

An extract from a STBC rep in my question as SLP whether all institutions will receive copyright release. "Yes, any PSI may request for copyright release, and we're happy to extend that individually. Copyright agreements are processed individually for each institution, based on the specific purpose for which they have requested to use the materials. A single agreement covering all institutions is not feasible"