BC Electrical Instructors Articulation Committee
Hosted by Camosun College, Victoria BC
June 2, 2020
Meeting Minutes

Attendees

Attendee	Institution	Attendee	Institution
Myles Andrew	University of the Fraser Valley	Dave Murdoch	College of the Rockies
Emma Baggot	Kwantlen Polytechnic University	Ron Murray	Kwantlen Polytechnic University
Dave Briggeman	Selkirk College	Olaf Nielsen	Camosun College (System Liaison Person)
Clarence Burlock	BC Institute of Technology	Mark Oickle	Camosun College
Roger Cannon	Kwantlen Polytechnic University	Peter Poeschek	Thompson Rivers University
Nathan Chapin	BC Institute of Technology	Lee Pollack	North Island College
Jason Dabner	Thompson Rivers University	Nicole Reinelt	Camosun College (Recorder)
Shane Dalager	Vancouver Island University	Jason Schapansky	Thompson Rivers University
Charles Davis	BC Institute of Technology	Amie Schellenberg	Thompson Rivers University
Carmen deGoey	Camosun College (Virtual Host)	Ted Simmons	BC Institute of Technology
Stephen Dockery	Kwantlen Polytechnic University	Mark Smith	Kwantlen Polytechnic University
Mike Dwojak	Northern Lights College	Daniel Smythe	University of the Fraser Valley (Curriculum Sub Committee Chair)
Joel Feenstra	University of the Fraser Valley	Kevin Szol	College of the Rockies
Mike Finch	Thompson Rivers University	Mike Turley	Thompson Rivers University
David Johns	North Island College	Orlando Wall	Kwantlen Polytechnic University
Samuel Johnson	Vancouver Island University	AJ Wearmouth	Selkirk College
Todd Leskie	Okanagan College	Jeremiah Williamson	Okanagan College (Chairing)
Mike Mann	Kwantlen Polytechnic University	David Wright	Kwantlen Polytechnic University

Guests

Kirstin Leversage	Industry Training Authority
Colleen Rogan	Industry Training Authority

Regrets

John MacMillan	College of New Caledonia
Cam Thiessen	North West Community College

Item	Discussion
1. Welcome and Acknowledge-ments	Meeting called to order at 9:04 am by Jeremiah Williamson. A thank you to everyone for coming to the virtual meeting. Discussed housekeeping around chat box and Robert's Rules of Order. Carmen DeGoey shared artwork by Christie Belcourt. "To honour, respect and acknowledge relationships with First Nations and Indigenous peoples of our province. We collectively acknowledge their welcome and graciousness." Image included territorial acknowledgements from each institution.

Item	Discussion
2. Approval of agenda	**Motion** moved by Ted Simmons ***to accept the agenda as presented*.** Seconded by Daniel Smythe**. Motion carries**.
3. Institution Reports	Please see attached reports from the following institutions: Selkirk College University of Fraser Valley Camosun Collegewaterd Kwantlen Polytechnic University BC Institute of Technology College of the Rockies Thompson Rivers University Northern Lights College Okanagan College North Island College Vancouver Island University
4. Electrical Construction Apprenticeship p p Program Outline Adjustment	<u>Level 2 overloaded with learner outcomes</u> Peter Poeschek (TRU) created a spreadsheet that was shared with group and informs some of this discussion. The spreadsheet is not written in stone. Harmonization documents spread DC machines out over two levels. If moving DC machines to third year, the ITA will need to be convinced to make changes on their end as well. Robust discussions around level 2 being overloaded with content. DC machines would be a better fit in first or third year with most of the group leaning towards inclusion in third year. If we move machines to level three, also need to move machine controls from level two to level three. If DC machines were moved to level 3, something else would have to shift out. It would be valuable to have complete re-assessment of whole program at every level to ensure things are situated in the right spots. Feels like not enough time to teach. Return of DC machines into level three would push timelines tight due to hazardous locations. Inclusion of DC machines in level one, might further distance concepts that relate to DC in level three. Perhaps inclusion of basic controls in level one. Hazardous locations needs to be shifted back to 4th year. Question: How do we propose a change in our program outline? Answer: Would need to craft a proposal of all changes, this can fall onto curriculum subcommittee, draft a letter, send to articulation committee, get approval and push forward with Colleen and Kirsten at ITA. Discussion over whether the ITA would revert on harmonization, agreement that was unlikely <u>Level 3 Code, Specifically Hazardous Locations</u> Discussion around lack of clarity for teaching code as it relates to the SLEs. Instructors are doing their best to teach related code with content either during the topic or at the end during a code section. Level three is hardest. All of the info that used to be in level three (apartment calculations, motor bank risers, transformer banks, etc) is not there anymore. Learning outcomes need to be clearly identified for each level.

Item	Discussion
	Massive spread in how code is brought across in the program outline. Sometimes it's explicit, sometimes optional. Problem with assuming code and topic will be taught together is that topics are sometimes taught in multiple levels. Individual institution then decides how/when code is taught. What effect does this have on SLE outcomes? Discussion around using older code modules and removing code from the SLE. Some institutions are for removing code from SLE, others not. Important to make code relevant for each level and offer assignments/exams specific to code. Code knowledge is necessary for the IP exams. The curriculum subcommittee may want to meet and address this issue. Perhaps build a common document based on current program harmonized outline. This could bring agreement on what objectives should be covered when. Jeremiah Williamson: General message that I am hearing is there is no clear direction and we would like to have that so everyone is on the same page.
5. Level 4 Harmonization Implementation	BCIT is ready to go for level 4 harmonization. If postponed, would be devastating for the work already been done. The Jan 2021 implementation date needs to happen. Camosun has a four-year waitlist for level four. Using ITA binders, hoping we can resolve some funding to create harmonization level 4 binders Discussion around resources being used: Using government modules, hoping that there will be funding available for level 4 curriculum development Depending on topic, we use manufacturing information. BCIT has own curriculum that has been developed. Also use industrial wiring book. VIU uses ITA binders and would like to see them updated for level four use Even before using Nelson publications, BCIT primarily had own material for level four. Each instructor generally has own material for their topics and they collaborate on exams for consistency. Rely on fourth year binder to some extent but some content is old. Along with that, we supplement with manufacturer installation guides (fire alarms, PLC, security, generator systems, etc.) BCIT also uses product called Amatrol for online tutorials specific to equipment/topics they cover and Simutech, an online troubleshooting software. Both have integrated nicely into online delivery. Link to those products was sent by Clarence to group. Working with Nelson pub over last 2 years to improve/update content.
6. Level 1 and 2 SLE results for this year	<u>Discussion around SLE results</u> Clarity around how exams are created and vetted would be good for new members of articulation Level two SLE had relatively low results, likely due to level two being overloaded, not so much a problem with the SLE itself. Pilot level one SLE was written in 2019, had ITA come in and interview students on degree of difficulty, material content. Students thought the material and degree of difficulty was same as they would expect from regular exams but amount of content in level two was significantly more than they experienced in level one. Involved in post-pilot review of SLE, level two. Students were given 2 exams and 1 hour to review with ITA rep. None of them were able to finish the exam in the pilot.

Item	Discussion
	Camosun participated in first round of pilots for level 1 and 2 SLEs. Feedback from students was complete frustration. Students were upset about writing a pilot exam during their review week for their own final exam. Invigilators of those pilot exams were asking questions about the exam structure but not the content of the exams. Students felt like they were unable to provide feedback on how exam questions were written. Level 1 exam has some room for improvement but not overall bad. Level 2 results were extremely low, not so much issue with exam but overload of material. <u>Discussion around ITA rewrite policy</u> ITA allows up to 5 rewrites, 30 days spaced apart, pay sitting fee for rewrites 3-5 EIAC minutes from last year state 4 rewrites before committee decides if they get a 5th. ITA only sees blended mark at the end so they are not checking marks before the SLE. If student is not passing in-school component, they can still write SLE due to virtue of blended marks. **Questions for ITA**: What constitutes a rewrite? Can they keep rewriting until they get 75% to pass? Does a student have to pass training with school to write SLE? Are students allowed a rewrite on SLE if they achieve 70% but not enough to get them to a passing grade in course? Jeremiah realized we missed accepting 2019 minutes Nathan Chapin clarified that EIAC passed a motion in 2018 that minutes would be automatically adopted after previous minutes are sent out and one month passes with no corrections. No need to motion now.
7. Curriculum Sub-Committee Update	See attached report from Daniel Smythe. Floor open for questions and feedback. Thank you for the detailed, professional report. Only comment is about terms of reference. Would like to suggest for membership to have the terms of reference, should be for members of articulation committee. It is nice to have lots of experience behind curriculum development however the harmonized curriculum is not being taught by all instructors. Those instructors are going to be crucial in being able to maintain binders going forward The terms of reference as adjusted drew from previous terms of reference and this point was one of those artifacts: “it is required that members nominated are familiar with and have instructed in all four levels of ITA program outline” Inherent value that each committee member brings is heightened by having taught all four levels. The rationale is that ideally anyone raking of the positions on that committee would have the broadest possible understanding of the material. <u>Discussion around membership requirements and process</u> Q: After someone has been nominated, what process is in place to verify someone has taught all levels? A: Integrity of particular school/individual. No enforcement or controls implemented. Think it would be better if terms of refence would not be limiting. Believe that every person in articulation group is qualified to sit on that committee. Could be fixed if wording was changed slightly from “are familiar with and instructed” to “when possible be familiar with and instructed all four levels” Each school should have ability to provide a representative for the committee. Not sure how many schools the concern would apply to. Good point that we do want broad rep from as many schools as possible. Q: The terms of reference doesn’t mention industrial electrician, only construction. Could that be generalized?

Item	Discussion
	A: This was discussed. Articulation group is primarily made up of construction electrician instructors. To my knowledge there isn't cohesive curriculum for industrial electrician. Proposed change to same paragraph in terms of reference: "it is recommended that members nominated are familiar with or have instructed in all four levels" **Motion put forward by Nathan Chapin** ***I move that we adopt the electrical curriculum subcommittee terms of reference be adopted with the wording changes as specified, effective June 1, 2020.*** -Seconded by Myles Andrew The curriculum committee will need to ratify the terms as is or with an edit. Once the committee discusses potential edits, would call to vote to ratify. Poll to group-**motion carries** <u>Discussion around creation of new curriculum sub-committee.</u> Daniel will not be standing for chair role again. The current committee is made up of 2-3 reps per institution. Per the new terms, could move to having a single representative per school. Guides formation of new curriculum sub-committee. General agreement that the group did not anticipate creating a new committee today and each institution would like time to nominate members. **Motion put forward by Peter Poeschek:** ***Move that electrical articulation committee accept nominations from each institution within the next two weeks to serve on curriculum subcommittee*** -Seconded by Daniel Smythe Daniel will remain as interim chair of subcommittee until nominations come forward and a new committee is formed. All nominations for membership can be sent to Daniel Q: if not all schools put forward a name, how do schools put forward a second member? A: once the initial committee has been formed, committee as it stands at that time would nominate a new chair, new chair would reach out to schools to verify if they are not providing a rep, at that point could be opened to secondary nominations from institutions. **Action item**: ***nominations should be received by June 16th***. **Poll to group. Motion carries** Morning session ended at 11:46 am.
ITA Presentation	Colleen Rogan and Kirstin Leversage presented. Please see attached report.
Student Resource	<u>Discussion around resource materials: ITA binders, custom textbooks</u> Nelson publishing announced they are pulling out of post-secondary sector. That will transition over to Cengage. Means that waters around custom Nelson textbooks are muddy. Guess is that moving forward the ITA binders will become a primary resource in addition to stand alone textbooks.

Item	Discussion
	Nelson has been a 3rd party managing things for Cengage Canada. Contacts will stay the same. From our perspective we shouldn't really see any change. Q: Can you expand on what requesting the binder material copyright would let us do? A: The intent was wanting to have control of the binders and take away from ITA. Frustration that the binders are not updated as fast as the group would like. Would like opportunity to pick and choose what we want out of binders and give to students for free through learning management system Owning copyright would let us maintain resources and collect royalties on material. <u>Discussion around Open School BC, BC Campus and binder royalties</u> Currently have TTBC playing part of the role that Open School used to which means projects must be proposed and lobbied to TTBC. A framework with TTBC to propose a project for level 4 harmonization was being worked on until shelved by COVID situation. Q: Any thought to joining with BC Campus, getting copyrights over to them? A: If ITA was willing to go that road, BC Campus seems like the most viable option. Not sure that articulation group could hold copyright or collect royalties. All content downloaded to site became copyright of Open School. Other concern, if that did happen, would royalties still be collected? If not, how would we be funding updates in future? BC Campus material removes copyright, becomes open source. BC Campus uses a funding model to produce and update material. Provincial government grants money and they put out proposals that we could respond to. Discussion over whether or not there is any financial statement or confirmation of exact value of royalty fund. Would it be valuable to create a position on curriculum subcommittee, responsible for connecting with all parties involved in student resources? Connecting with someone in queen's printer, know budget for year, create more a structure on financial piece, etc. <u>Discussion around how to pose this to ITA during discussion on Friday.</u> What questions to ask? How do we organize this? Discussion around asking for money back and where that money would go. Should we craft a letter to make a formal proposal to ITA? Copyright in lieu of money? Carmen DeGoey will create a blackboard collaborate session for Wednesday 9:30 am to develop questions for ITA. One rep from each institution can attend.
System Liaison Person Report	Olaf Neilsen presented. As of right now, there are discussions between TTBC and ITA to look at timeline for student materials but nothing currently going forward. BCCATA working group. Some work has happened. Has committee seen the ITA worksheets for trades? Olaf shared on screen and they will be distributed to group. The worksheets identify essential and non-essential competencies. As a resource, the worksheets may help ensure some level of consistency within the system. ***Action item: ITA worksheets to be shared with EIAC members.***

Item	Discussion
	Utilization targets will not be implemented for fiscal 2021, in recognition that class composition will be changed pending on return to face to face delivery. Revenue streams will be impacted and the ITA will be looking at strategies to deal with supplemental funding. Work has gone on in regards to strategies for protocol following provincial health officer guidelines. Each institution will have criteria around that. The spreadsheet distributed by Peter is very valuable and can be used to inform question for the meeting with the ITA COO on June 5th.
Articulation Chair and Co-chair –	Discussion around continuity of chairs/co-chairs and whether to decouple the chair role from the meeting host role. Chair should be a two-year term for consistency. Most schools would not want to host two years in a row. Group reviewed BCCATA terms of reference, their recommendation is also for a two-year term. Discussion over these terms and best method for appointing chair and co-chairs. Discussion around separating host from chair/co-chair position, how many to elect, how often, who hosts. Need for clarity around roles. Who is responsible for ensuring motions are followed up on? Responsibility lies with chair. Co-chair is there to support. **Motion moved by Nathan Chapin:** ***A co-chair is nominated and appointed by the EIAC at every annual meeting for a one-year term. At the next year's annual meeting the co-chair shall become the chair for a one-year term and a new co-chair shall be elected. The host institution shall be decided at the annual meeting for the following year.*** **Seconded-Daniel Smythe. Motion forward as a question to vote agree/disagree. Motion carries**
Action Items from 2019 EIAC meeting	There are two outstanding action items from 2019: *Pending any inaction of Motion #1 and Motion #2 the EIAC will draft a letter to the Ministry responsible outlining our concerns* *That the EIAC send a letter to BCATTA that the committee is opposed to the development and use of Standard Level Exams and challenge exams* Group discussion on action items. Group agreement to put questions together during follow up meeting on June 3rd, take to meeting with ITA on June 5th and re-evaluate afterwards.
EIAC Elections	Jeremiah Williamson will move from co-chair to chair position per the motion carried. **Nominations for co-chair**: Charles Davis nominates Carmen DeGoey for Co-Chair Carmen would be interested in the co-chair position but would not be able to take on chair role in a year from now. Declines nomination. Clarence Burlock nominated Nathan Chapin. Nathan accepts the nomination. Voting was done by poll and confirmed Nathan as co-chair. Roger Cannon: Kwantlen Polytechnic University offers to host articulation in 2021. Carmen DeGoey: Thank you to Daniel for his leadership on the curriculum subcommittee and to Jeremiah for stepping in and taking over the chair role on short notice. Meeting adjourned by Jeremiah Williamson at 3:31 p.m.

Vancouver Island University Report

2020-2021 Academic Calendar

3 Foundation Programs, to date September and November have full enrollment

1 Level 1, harmonized, full enrollment

2 Level 2, harmonized, full enrollment

4 Level 3, 2-harmonized, 1 non-harmonized (last one, No GAP), full enrollment

4 Level 4, non-harmonized, full enrollment

Since March 23rd, 2020 there have been no f2f classes in electrical. Some other trades like welding have been bringing in 1/3 – ½ classes, with strict protocols for distancing and cleaning. We have been instructed by administration that there will be no f2f classrooms until at least January 2021.

Electrical courses have been completely online, VIU has bought multiple Zoom Professional licenses for the instructors. This has worked well, and the instructors have been able to adapt to delivering classes through Zoom.

Using breakout rooms in zoom and working with smaller groups of students had been the most effective in keeping students engaged and in the programs.

The other online tool we have is D2L, VIU has a department of approximately 10 to support all of the university instructors and professors. They are also offering short 1hr to longer weeklong intensive trainings to migrate programs onto online. One of the exciting offerings is a 'backwards design' using mostly asynchronous learning sequences, with very little marking from the instructor. There are a few brave trades instructors working this model to see how it can best fit the demands of trades learning outcomes.

VIU has a video site called 'VIUTube' like YouTube, where recorded Zoom classrooms or instructor desktop videos can be posted and linked into D2L for easy access for students, this software allows for questions to be embedded into the video, where the video stops and the question has to be answered before moving on.

We have LabVolt equipment and are looking at their simulation software to deliver some of our labs virtually. There is several other simulation software we are test driving and would really appreciate feedback from other institutions as to what they are using and satisfaction level.

One big idea is that there are simulation software provincial licenses that most companies would love to sell! As a province we could really get a better bang for our individual and collective buck by purchasing some these.

September will see the availability of f2f labs, we are looking towards the EIAC, & the ITA for direction on which are the essential labs that we will be delivering.

There are protocols in place for each lab area to maintain for social distancing, flow, cleaning etc. that are being worked on through June to be ready for September 2020.

Dividing our 18 student foundation classes into 2 sections and having 1 section come onto campus for 1 day per week to complete 6.25 hours of the regular 10hrs they would normally have seems to be the best compromise and we are working towards modifying our labs to adhere to provincial social distancing.

Apprenticeship labs are most likely going to be 1/3 to ½ of the class, coming in for ½ of day, 1 day per week. We have challenges of the total number of students that can be in our lab building at one time and the timetable for this still needs to be worked out.

Although there has been a fantasy from budget minded administrators from the invention of the printed book to the computers of 1970's with mono-colored screens, to today with premade video and simulation software, that the instructor is not needed and something else can teach everything one needs to know, it is just that - a fantasy that does not take into account how most people learn or how learning happens. Connection, instructor to student, that is what makes learning really happen and those of us who understand and enjoy that connection will always be needed, especially in the trades.

Samuel Johnson

VIU, Chair Electrical Department

Okanagan College Institutional Report - 2020

The 2019-20 training year saw us offer 39 apprenticeship intakes and 6 foundation intakes

The 2020-21 training plan for OC is for 36 apprenticeship intakes but as we see the COVID-19 bulge push through we anticipate and additional 8 apprenticeship intakes and 1 more foundation offering. Our next scheduled intakes will limit apprenticeship intakes to a population of 8, due to lab equipment access.

We have scheduled a total of 18 instructors to cope with the 2020-21 demand.

The foundation classes had to quickly adjust to an online training format. The apprenticeship classes had been not been in session at the time of COVID-19. This had allowed a delay before starting the apprenticeship classes. The apprenticeship classes will resume June 15 entirely on line. Like other Colleges and Universities, we are struggling to adjust to an online training format with the students.

North Island College

We have had an increase of total electrical program faculty members over 2020. There is now a total of 5 electrical apprenticeship/foundations instructors here at NIC.

2019/2020 school year

Foundations: 2 classes

Level 1: 1 class

Level 2: 2 classes

Level 3: 3 classes

Level 4: 2 classes

Approximately 176 electrical apprenticeship/foundations students have passed through NIC

NIC has been actively engaging with the Campbell River Airport Authority over this year. The CR airport is the only site in Canada with a functional hands-on airport runway lighting system for training purposes. We have also acquired a significant quantity of new equipment which we are excited to start having students engage with. One of the new equipment acquisitions has been a (designed and built in-house) fire alarm trainer. This will enable students to connect numerous FA components and build a complete functional system. As with all other institutions, the push to online has been a challenge.

College of The Rockies (COTR) Electrical Programs Update
June 1st 2020

Number of instructors : four full time instructors.

For 2020 programs that we have run and will run:

- Two foundations programs
- One 1st year class
- Two 2nd year classes
- Two 3rd year classes
- Two 4th year construction classes
- One 4th year industrial class
- One high school sampler electrical program over a three-week period

On March 23rd 2020 , all our programs that were running became an on-line version. Some in-takes started on-line a week earlier.

There was basically zero access to the electrical building after this date for staff as well. If we did require some items from the building, a request was put in and we could get some material.

We now have protocols in place for new classes that will allow limited access for students and staff in the summer and fall. This access is for lab time and shop time only. The theory instruction will be on – line. So, we now call it a hybrid delivery.

For example, the 4th year industrial class starting June 29th will have a total of ten lab days. The lab days will be 2 days a week for the last 5 weeks. This will be a good compromise for out of town students.

An issue that is starting to come up is for our out of town students. Trying to come up with a solution or compromise that doesn't require them to find accommodation for a ten-week period, if we are only getting 20% access to the lab.

We have been using Microsoft TEAMS and Moodle for our on-line delivery. Are starting to use on line Lab –Volt as well. We have used the virtual multi-sim for electronic demonstrations for a number of years.

Thanks,

Dave Murdoch

BCIT Institute Report - Ted Simmons

BCIT continues to be extremely busy. We currently have 46 Instructors and this year we will deliver 112 Apprenticeship classes, 24 Foundation classes and 3 Security alarm classes. We have delivered “9” harmonized level 3 classes.

BCIT began the current term with the intention of face to face training; however, we were notified the day before the session was to start that we would be moving to an on- line model. We had/have seven 4th year classes, seven 3rd year classes, nine 2nd year classes, two first year classes and eleven Electrical Foundation classes that were all at various stages of completion. We divided the Instructors into teams for each level, linked all of the classes and worked together as a group within our respective levels to deliver the program. We created videos for some topics and used zoom and virtual classroom as well. There have been some bumps along the way but we are getting by.

A couple of online resources that we have made use of in various levels are Amatrol and Simutech. I have included the links for anyone who might be interested.

https://www.simutechmultimedia.com/

https://amatrol.com/

We also have the online labvolt/festo material.

We created templates through our learning management system (learning hub). These templates have worked quite well to date; however, the real reason this was able to be pulled off was the instructors who stepped up to make this happen. It has been great to see how the department has pulled together.

We have recently received word that we are likely looking at online delivery at a minimum until the end of the calendar year. We are on pace and ready to go for harmonized level 4 both construction and industrial in January.

Articulation Report

Northern Lights College

June 2020

As of June, of this year, Northern lights college is running at least one full stream of electrical apprenticeship cohorts each school year. We have hired a new instructor which has made this transition possible and it been working out well.

Our overall numbers in regard to electrical apprentices looking to secure training seems to have fallen off slightly over the past couple of years. This is in direct correlation to the downturn in oil and gas, and was to be expected in our region. Northern Light College continues to work toward providing the resources and training needed to ensure the success of our learners, and will continue to provide a comprehensive and flexible schedules so that we continue to meet the needs of our learners.

COVID-19 Update:

As of March, of this year we have only taken on courses that were already in session and the Electrical Trades Department along with most other trade's instructors have been working from home to facilitate a smooth transition into online learning. We are currently running an Electrical Foundations course online which will end in the next few weeks. The challenges have been many yet the outcomes appear to be good. Our instructors have also been engaged in participating in online presentations to learn more about the possibilities and the pitfalls of online delivery for our trades and other learners. We are currently wrapping up our Exposure Control Plan which I believe, will allow for our learners to experience the hands-on portion of our courses in safe and healthy environment.

Stay Safe, Stay Healthy,

Mike Dwojak

Electrical Instructor
Northern Lights College

KPU's Electrical 2020 Articulation Report

- As a Department we have chosen to continue to use the ITA's binder package as the basis of our curriculum.
- We have increased our number of course offerings to 18 Apprenticeship and 5 Foundations classes.
- There are 13 instructors in the Electrical and Mechatronics department.
- We continue to have significant waiting lists for most levels. (it would be good to move away from the current 'competition' model for student seats, and revert to the old system of students being placed into seats).
- Finding enough room for shop space continues to be a challenge, however there are preliminary plans in the works to reallocate campus shop space so that we can expand.
- Classroom space is also at a premium - as a result of Covid we may continue to offer a limited number of courses in some form of a hybrid fashion.
- We struggle with the current layout of the Harmonized curriculum.
- Covid has revealed that there is an inverse relationship between age and technical savvy amongst our Instructors,
- The ever changing and protracted adoption of the CEC is forever causing a significant of workload in adapting curriculum etc.
- There is a good administration team that is stable and supportive.

TRU Articulation Report

- 10 Full-time Faculty members
- 1 – Continuing Sessional Faculty member
- 2 - Sessional Faculty members
- 28 – apprenticeship classes total – 10 classes since March 16 transitioned to alternate delivery
- 4 - Foundation classes (2 suspended – one transitioned to theory delivered through alternate delivery, practical's starting June 1, other class to resume June 29th, theory alternate delivery, practical's to be delivered after completion of theory.
- Delivering a 4-week renewable energy pilot to the Foundation class that started in October 2019.
- 1 – High School electrical trade sampler, other one cancelled due to COVID-19
- 1 – Women in trades 2-week section
- Every trades program being reviewed on a case by case basis regarding returning to face to face classes and labs, must maintain social distancing, washing of hands, etc.
- TRU's mandate, as much theory as possible must be delivered by alternate delivery.

Thanks,

Peter Poeschek

Camosun College

- 5 Foundation and 33 apprenticeship classes (19-20)
- 1 FTE above base last fiscal
- Camosun has 14 fulltime continuing Instructors and 4 term instructors
- Our department has a Chair, Carmen deGoey, and a Program leader for the Foundation Program, Michael Schroeder
- We have one lab tech who is a Red Seal Certified Electrician, builds/updates/maintains equipment and supports students
- Camosun offers special projects: (WITT) women in trades training, (TASK) trades and skills knowledge program, ACE-It and (IPTT) Indigenous peoples in trades training.
- We actively deliver apprenticeship at some of the penitentiaries through the Special Projects Department.
- Current challenge is working on harmonization and virtual online resources off the side of our desks. The sudden switch to virtual/online delivery has taken its toll on the Department, everyone is tired.
- Camosun continues to have long wait lists except for level 1 as the foundation program takes most of the students. Current level 4 has the largest wait as students are trying to train out of the current level system. There are many students that will have to take Harmonized Level 4 with GAP training in order to complete their apprenticeship.
- Currently completing 9 apprenticeship and 1 Foundation virtually May 29, with an IP scheduled for 30 students on June 10/11.
- Currently onboarding 3 apprenticeship and 1 Foundation
- All Programs/courses at Camosun if can be online will remain on line. Only essential practicums/labs will be considered to come back on Campus to obtain certifications, when an approved plan is in place.
- Thank you to the Curriculum Sub Committee members who dedicated so much of their time on the new student resources.

2019/2020 Report Selkirk College

We have 2 full time apprenticeship instructors and 1 yet to be hired Instructor for Foundation

Tom Babott is now retired

We teach 6 apprenticeship courses based on local requirements and 2 foundation courses annually

Both AJ and I are teaching from our homes and are planning on bringing our foundation students in to our shop in June and July with all the safety rules being followed.

We have a new Lab as of last Sept. where we have 9 loaded Lab Volt stations and a brand new classroom.

We just hired a new Dean for our school who starts in July.

Short & sweet

Dave Briggeman

UFV Institutional Report – 2020 EIAC

In the 2019/20 fiscal period the electrical department at UFV completed eight apprenticeship classes through base funded programming, and another three apprenticeship classes through one-time funding. The department also completed three foundations programs, including our regular CTC class.

The department consists of four permanent faculty members and one full-time sessional instructor.

UFV had one Level 2 class write an SLE on March 13th. The results were provided to UFV on April 30th, after receiving notice on April 14th that the results would not count toward student scores. The results for UFV's Level 2 class indicated a 50% pass rate (8 out of 16), average score of 63% and a spread of 28% to 86%.

COVID-19 has caused significant disruption to our programming, as it has to everything else. On March 16th the institution put a pause on all programs in order to establish protocols for courses to be completed online. At the time there was one Level 3 apprenticeship class and one Foundations class running. The Level 3 apprenticeship class had only three weeks remaining and was completed online. At only seven weeks into the program, the foundations class was put through one week of online instruction to finish off the current theory topic and then was put on pause. This class has since resumed with theory components online, and students are due to return on June 1st to finish shop with face-to-face protocols in place.

All classes scheduled to start after March 16th were postponed indefinitely. On June 8th the first of these classes are due to start in an online format.

UFV uses Blackboard Learn as an LMS and the Collaborate platform for virtual classroom sessions. The live chat app Discord proved very useful in the initial pinch of moving online as most students seemed to be very familiar with the platform already. Posting video lessons to YouTube also allowed students to source the media from a very familiar interface, although the Kaltura function within Blackboard has been useful for embedding quizzes within the videos.

ITA Update for Electrical Articulation Committee, June 2, 2020

Presentation by Colleen Rogan, Program Standards Manager, and
Kirstin Leversage, Program Development Officer.

Slide 1: Title Page

Colleen thanks the committee for the opportunity to provide an update.

Slide 2: Agenda:

1. Learning Resource discussion scheduled
2. Today's ITA presentation and articulation minutes
3. COVID-19 update
4. Apprenticeship numbers
5. IPSE Statistics
6. Code Books for exams
7. Harmonized program transition plan
8. SLE development and ongoing maintenance

Questions relating to learning resources will be answered by Rod Bianchini, ITA COO. A separate webinar will be set up Friday June 5, 1-2:30pm to discuss the learning resources with the Articulation Committee.

Please send further questions through the chair to kleversage@itabc.ca. A written response to questions will be provided for inclusion in the meeting minutes.

Slide 3: ITA COVID-19 Update

ITA is responding to COVID-19 in alignment with the Ministry of Advanced Education, training providers, and following Ministry of Health advice. We thank all our training partners who are doing everything possible as we work together to continue supporting trades training, while minimizing the risk of exposure to the COVID-19 virus.

All SLE exams are suspended until further notice. Training providers are to report a class mark which will serve as the apprentice's final mark. (No SLE blend). Training providers should work within their institutions to determine how to meet the requirements of the assessment guidelines.

Certification exams (Interprovincial Exams) will continue. Exam sessions will follow current Provincial Health Officer (PHO) and BC Centre for Disease Control requirements.

More info: https://www.itabc.ca/covid-19

Slide 4: CE Apprentice Numbers

Construction Electrician Highest Current Level Achieved

	0TT	L1	L2	L3	L4
Active	0	0	573	1477	781
Inactive	0	0	461	201	265
Total	0	0	1034	1678	1046

Construction Electrician Highest Harmonized Level Achieved

	0TT	L1	L2	L3	L4
Active	1447	2021	1197	9	0
Inactive	1646	934	39	1	0
Total	3093	2955	1236	10	0

	Apprentices in Current CE Program	Apprentices in Harmonized CE Program	Total CE Apprentices
Active	2831	4674	7505
Inactive	927	2620	3547
Total	3758	7294	11052

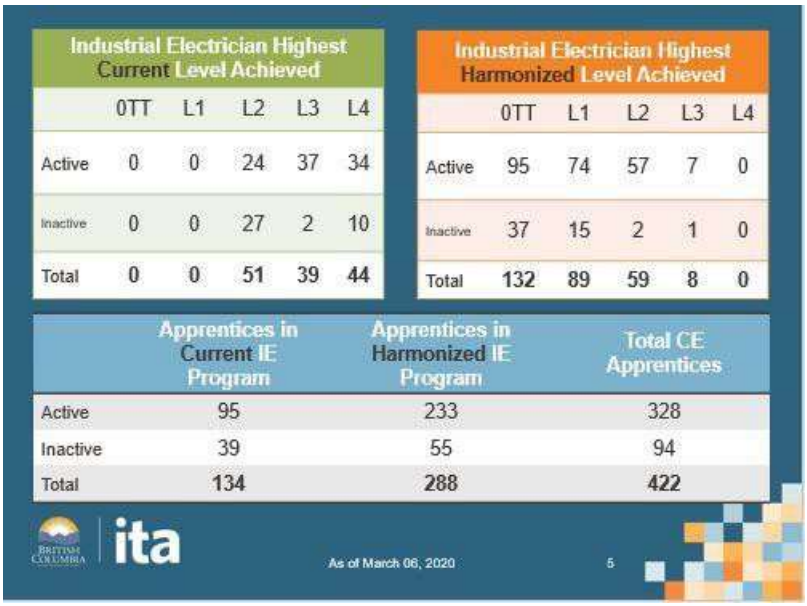
Total CE apprentices in current program: 3758. Total CE apprentices in harmonized program: 7294.

Note 1: Apprentices listed in the Harmonized program may need gap training if their most recent level of training was in the Current program.

Note 2: Active/reporting apprentices have logged activity with ITA in the past 18 months (i.e. reported WBT, technical training). Inactive/non-reporting apprentices have not logged activity in the past 18 months. This is for ITA's reporting purposes only. As soon as an inactive apprentice logs any activity, they are automatically counted as active again.

ITA is moving towards a change in terminology – active category will be more commonly referred to as reporting and inactive will be referred to as non-reporting.

Slide 5: IE Apprentice Numbers



Industrial Electrician Highest Current Level Achieved

	0TT	L1	L2	L3	L4
Active	0	0	24	37	34
Inactive	0	0	27	2	10
Total	0	0	51	39	44

Industrial Electrician Highest Harmonized Level Achieved

	0TT	L1	L2	L3	L4
Active	95	74	57	7	0
Inactive	37	15	2	1	0
Total	132	89	59	8	0

	Apprentices in Current IE Program	Apprentices in Harmonized IE Program	Total CE Apprentices
Active	95	233	328
Inactive	39	55	94
Total	134	288	422

- Note increase in total IE apprentices:

- 2020 total IE: 422
- 2019 total IE: 388
- 2018 total IE: 358
- 2017 total IE: 295
- 2016 total IE: 228

Total IE apprentices in current program: 134. Total IE apprentices in harmonized program: 288.

Note 1: Apprentices listed in the Harmonized program may need gap training if their most recent level of training was in the Current program.

Note 2: Active/reporting apprentices have logged activity with ITA in the past 18 months (i.e. reported WBT, technical training). Inactive/non-reporting apprentices have not logged activity in the past 18 months. This is for ITA's reporting purposes only. As soon as an inactive apprentice logs any activity, they are automatically counted as active again.

ITA is moving towards a change in terminology – active category will be more commonly referred to as reporting and inactive will be referred to as non-reporting.

Slide 6 – CE Interprovincial Exam results

Construction Electrician IP exam results for 2019 and previous years. BC Apprentice pass rate is 77% for 2019. Results reflect writes of exams aligned to the 2015 CE Red Seal Occupational Standard (RSOS). Note that BC stats are for first time writes with a class. National Pass rate includes apprentice and challenger writes for all jurisdictions.

Slide 7 – IE Interprovincial Exam results

Industrial Electrician IP exam results for 2019. BC Apprentice pass rate is 69% for 2019. Note that results are provided for writes on exams aligned to 2016 IE RSOS. There were only 19 writes in 2018 on IE IP exams aligned to 2016 RSOS.

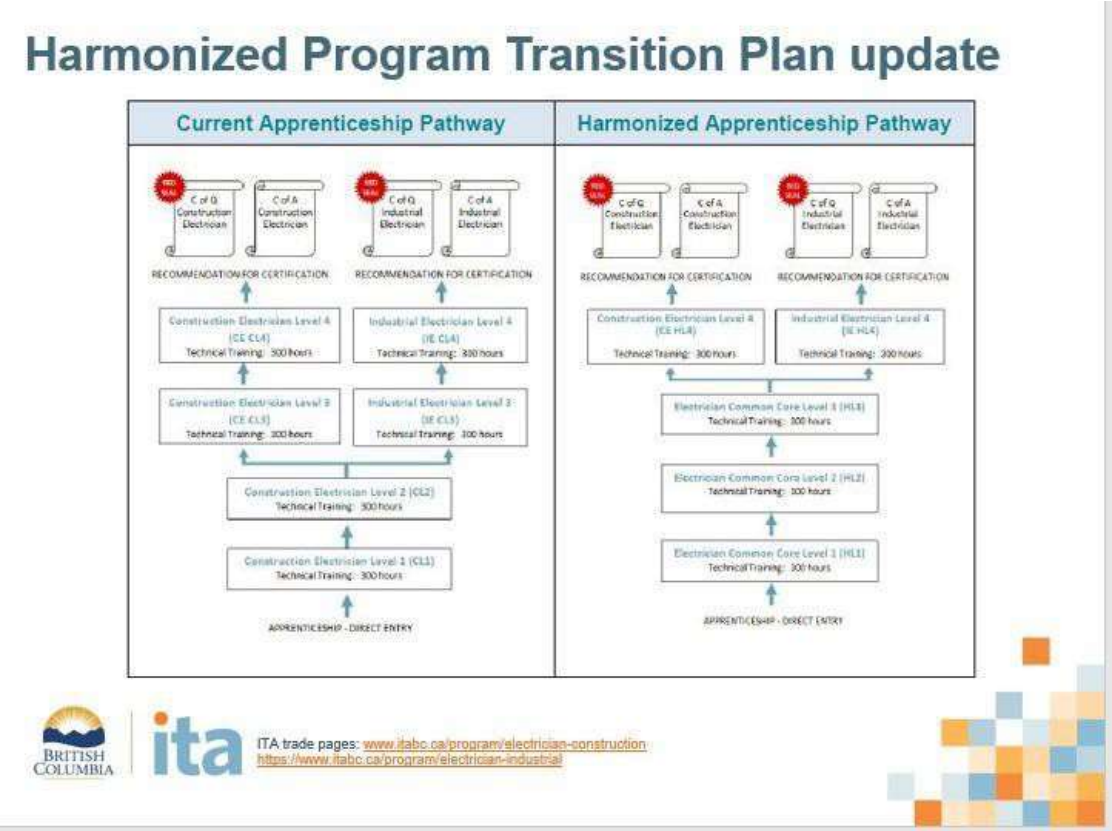
Note that BC stats are for first time writes with a class. National Pass rate includes apprentice and challenger writes for all jurisdictions.

Slide 8 – Canadian Electrical Code

As of September 1, 2019, the code books provided for candidates writing CE and IE IP exams changed to 2018 CEC.

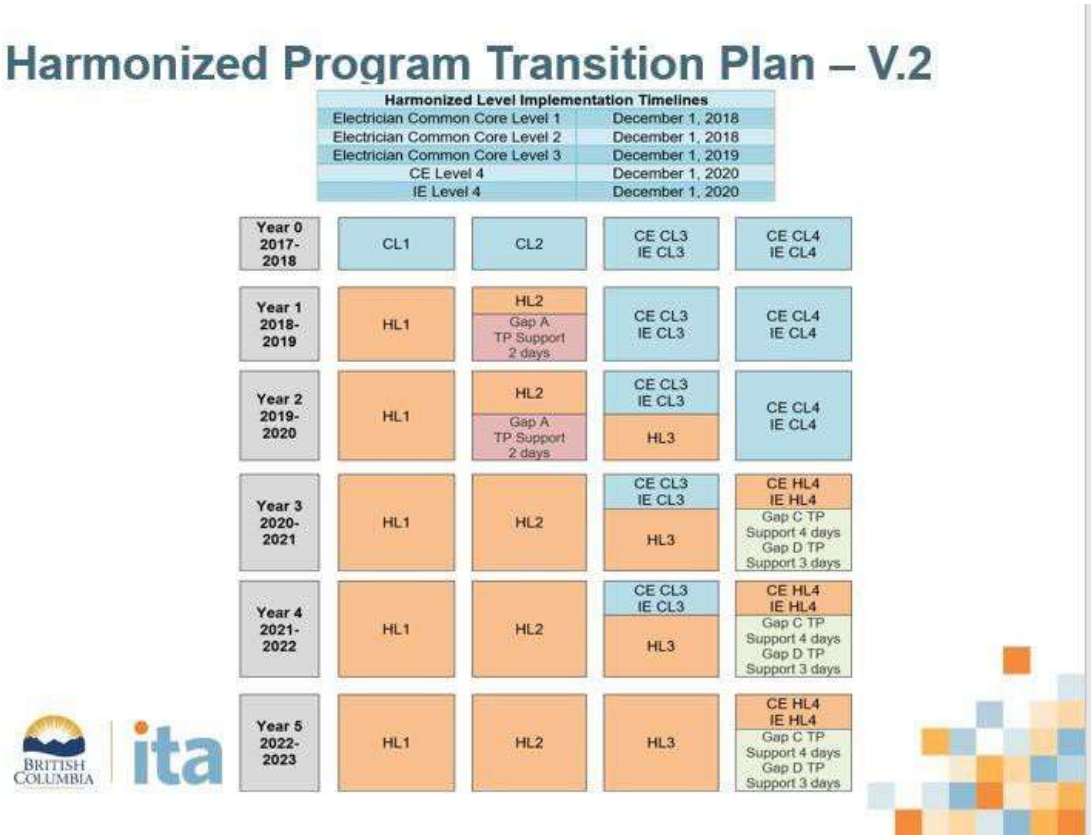
Standardized Level exams are aligned to 2015 and 2018 CEC. Every question can be answered correctly when using either a 2015 or 2018 code book for reference.

Slide 9 – Harmonized Program Transition Update



We are in year 2 of implementing the Harmonized CE and IE programs. The current (old) CE and IE programs have two common levels. Harmonized CE and IE have three common levels.

Slide 10 - Harmonized Program Transition Plan – V.2



We are in year 2. (December 1, 2019 – Dec 1, 2020)

Transition plan remains unchanged and is posted here:
https://www.itabc.ca/sites/default/files/docs/CE-IE_Transition%20Plan_April%202019.pdf

The plan includes dual streaming at level 3. The implementation dates of each Harmonized level remain unchanged.

Dual streaming provides a pathway for students in both the current and harmonized programs to continue in their program without transitioning from CL2 to HL3. It will prevent apprentices from transitioning where there is a 60-hr gap in training (Gap B).

To accommodate apprentices transitioning from CE CL3 to CE HL4, four days of TP support for Gap C will be available until December 2023. For apprentices transitioning from IE CL3 to IE HL4, three days of TP support for Gap D will be available until December 2023.

If you have questions that relate to the transition plan or delivery of dual streaming, please contact ITA Program Standards at programstandards@itabc.ca

If you have any questions that relate to the funding of programs or supports, please flag with your Dean to contact the ITA Training Investment Department at investment@itabc.ca

Slide 11 - SLE Development Process Overview

Exam Development Workshop

- Program Outline OAC → ToS → Exam Bank
- Direct link from Program Outline content to Exam Bank content

Peer Review

- Review of test forms by a different SME group

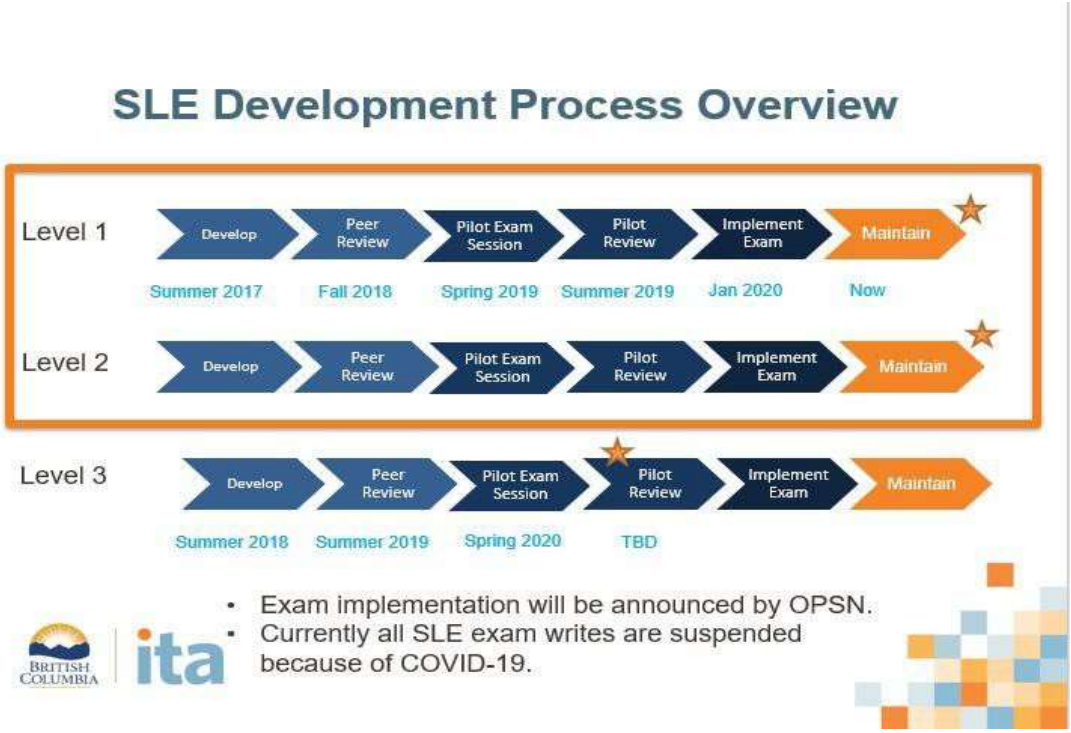
Pilot Test & Post Pilot Review

- Students provide quantitative, qualitative feedback
- ITA reviews item analysis for each question
- SME & Instructor response to feedback, further revisions if needed

OPSN announces exam implementation

Exams monitored for 1 year / minimum 100 writes, then as needed

Slide 12 - SLE Development Process Overview



Level 1 and Level 2 SLE exams were implemented Jan 2020. ITA has reviewed results with training providers and will undertake maintenance as required.

Level 3 development is complete. Pilot sessions ran in Spring 2020. Exam implementation will be announced by OPSN.

Currently all SLE exams are suspended because of COVID-19. Currently all ITA in-person workshops are also suspended, so next steps for Level 3 are TBD.

Slide 13 – SLE Format

As much as possible, the same format is followed for IPSE & SLE, including in the wording and presentation of the questions.

Each exam has a separate Reference Material Booklet

- Formula sheet is found here
- Figures may be used multiple times within the bank of questions. Therefore, Figure reference numbers are not necessarily in order.
- Questions referencing a diagram will begin with "*Refer to Figure 12*."

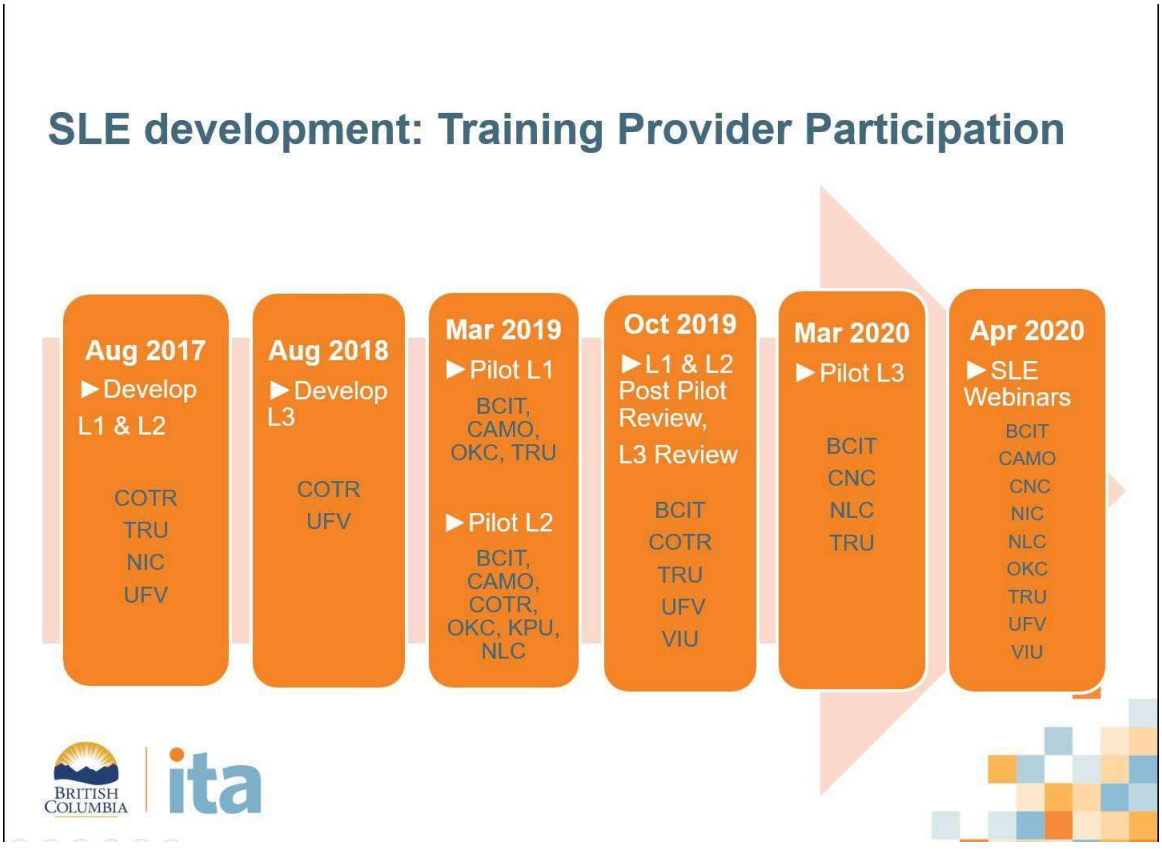
CODE BOOK USE ON L1 and L2 SLEs

Code books are provided for IP exams. For SLEs, students use their own.

Questions dependent on code will not normally be identified.

L1 and L2 SLEs have 30% code-related questions found throughout GACs with the *Install* verb (GAC H and above).

Slide 14 - SLE development: Training Provider Participation



The slide shows the Training Providers who participated in each step of the SLE development process. ITA thanks all the Instructor SME contributors as well as their Training Providers for facilitating their attendance.

Slide 15 - Process for ITA to obtain Instructor SME participants

1. ITA makes a request to the Electrical SLP for a particular number of Instructor SMEs for specific workshop dates.
2. SLP forwards the request to Deans at all public post-secondary institutions delivering the Electrician program.
3. Deans respond to the SLP with interested and available Instructor SMEs and their contact information.
4. The SLP returns the finalized list to ITA.
5. ITA contacts the participants to confirm and make workshop arrangements.

If you are interested in participating, be sure to let your Dean know!

This process has been defined by BC Association of Trades and Technical Administrators (BCATTA).

Slide 16 - Level 1 SLE Results Summary

The pass rate for Level 1 exams was 49% with an average mark of 69%. These results reflect March class writes only.

The weighting charts can be found on the ITA trade pages. Although the pass rate is low, students are failing the exam marginally.

Slide 17 - Level 2 SLE Results Summary

Level 2 SLE Results Summary

Number of writes	225
Pass Rate	36%
Average Score	65%

AVERAGE PER GAC	AVG	WEIGHT
A. APPLY CIRCUIT CONCEPTS	67	34%
D. ORGANIZE WORK	91	5%
H. INSTALL AND MAINTAIN CONSUMER/SUPPLY SERVICES AND METERING EQUIPMENT	78	5%
I. INSTALL AND MAINTAIN PROTECTION DEVICES	87	4%
L. INSTALL AND MAINTAIN BONDING, GROUNDING AND GROUND FAULT DETECTION SYSTEMS	76	4%
M. INSTALL AND MAINTAIN POWER GENERATION SYSTEMS	62	3%
N. INSTALL AND MAINTAIN RENEWABLE ENERGY GENERATING AND STORAGE SYSTEMS	70	1%
P. INSTALL AND MAINTAIN TRANSFORMERS	59	10%
Q. INSTALL AND MAINTAIN RACEWAYS, CABLES AND ENCLOSURES	57	5%
R. INSTALL AND MAINTAIN BRANCH CIRCUITRY	52	6%
S. INSTALL AND MAINTAIN HEATING, VENTILATING AND AIR-CONDITIONING (HVAC) SYSTEMS	44	6%
T. INSTALL AND MAINTAIN EXIT AND EMERGENCY LIGHTING SYSTEMS	56	1%
U. INSTALL AND MAINTAIN CATHODIC PROTECTION SYSTEMS	58	1%
V. INSTALL AND MAINTAIN MOTOR STARTERS AND CONTROLS	66	11%
Y. INSTALL AND MAINTAIN MOTORS	44	4%

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March 2020. Results reflect first time writes with a class.

The pass rate for Level 2 exams was 36% with an average mark of 65%. These results reflect March class writes only.

Slide 18 - HL1 and HL2 SLE Results Review

Several classes wrote HL1 and HL2 SLEs March 13-20. To ensure training providers could focus on and prioritize issues that had arisen due to COVID-19, a decision was made to not record the SLE results.

ITA scheduled a webinar with each training provider that had written the exams to:

1. Share and discuss exam results
2. Ensure SLEs provide a teaching/learning tool for instructors and training providers
3. Review student feedback with the training provider
4. Ensure all training providers have the resources and information they need for success

ITA would like to thank the training providers for taking part in the webinars. They were constructive and informative for everyone involved.

Slide 19 - HL1 and HL2 SLE Results Review

Reviewing the item analysis alongside candidate exam feedback (blue sheet feedback) has identified specific exam questions that ITA will focus review on.

Common feedback ITA received from training providers during the SLE results webinars was:

1. Level 2 is content-heavy.
2. Learning resources have some gaps and areas that need further refinement. They are still aligned to 2015 CEC.
3. There were different perspectives on how to incorporate code content into program delivery.

Slide 20 - Next steps

In collaboration with industry and instructor subject matter experts:

1. Review level 2 of the Program Outline.
2. Realign SLE content to reflect any Program Outline changes resulting from the level 2 review.
3. Complete a review of the items flagged through item analysis and candidate feedback.
4. Develop a mapping of CEC content recommended for each GAC and level.
5. Realign the learning resources - to be determined in a designated Learning Resource discussion with ITA.

Slide 21 - Articulation Committee Questions

ITA received 8 questions from the Articulation Committee before the webinar. Responses to the questions are provided.

1. Is the ITA after consultation with all training providers regarding the Level 2 SLE results going to be reviewing the Program Outline to see if we can correct the overloading of level 2?
2. In order to change the learning outcomes per level, does a Provincial Level Review need to take place?
3. When will Harmonized Construction Electrician be available for a "Provincial Level Review"?
4. What is the official process to request the review of the program outline?

ITA Response: ITA will review the sequence of Program Outline content. This will not be a full program review; rather a focused review with the aim to reduce the content in level 2. ITA is in the planning stages of this work. In-person workshops at ITA are currently suspended and alternate methods will likely need to be used to complete the work.

5. What does a Provincial Level Review entail and who is involved?

ITA Response: ITA is still planning the workshop. As with any Program Outline work, ITA will involve Instructor Subject Matter Experts (SMEs) as well as Industry SMEs. If there are instructors who would like to participate, please let your Dean know, including the members of the Curriculum sub-committee.

6. Will the Articulation – Curriculum Sub Committee have an opportunity to be involved

in the Review Process?

ITA Response: ITA will follow the usual process for obtaining Instructor SME participation. See Slide titled Process for ITA to obtain Instructor SME participants.

Question 7 & 8 are questions about Learning Resources. We defer those questions to the Articulation Committee's call with Rod Bianchini, ITA COO.

Slide 22- Wrap up

Please send further questions through committee chair to kleversage@itabc.ca

A written response to questions will be provided for inclusion in the meeting minutes.
These slides and the notes will be shared with the committee for inclusion in the meeting minutes.

OPSNs, Transition plans, weighting charts, formula sheet, Program Outlines, IP exam table can be found at: www.itabc.ca/program/electrician-construction and www.itabc.ca/program/electrician-industrial.

ITA Thanks the committee for the opportunity to present an update.

Second Set of questions and responses from Articulation Members emailed after the meeting.

1. **Is Developing Curriculum part of their mandate? Both in the past… and what about going forward…??**

As per the ITA notes provided for the meeting minutes attached, there was no mention from ITA of curriculum development.

2. **What constitutes 100 Writes? 6.25 classes with 16 students? or 100 separate class writes? if it is 100 exams writes this can be achieved in a single exam write period from across the province.**

Please refer to page 8 of ITA notes provided for the meeting minutes for the exam development and maintenance process. This means 100 **individual** writes and is in reference to a particular version, or form, of the exams. There are 3 forms for both level 1 and level 2.

The milestone of 100 writes is a guide for us. Maintenance is ongoing and as needed.

3. **In the Initial Harmonization Alignment workshop, it was Identified that Level 2 would likely be overloaded once it was observed that DC Machines had been placed in 2nd year. why has it taken this long for the ITA to recognize this issue?**

ITA followed the recommendations of the development group at the time of the PO development. The decision at the time was to keep the content in one level rather than split it over two levels. In addition, a draft Program Outline was sent to the Articulation Committee in January of 2017 for review and comment. All comments received were reviewed and addressed by the development group.

Data from the SLEs helped to frame in-depth discussions with training providers and pinpoint areas needed for further review. We look forward to reviewing level 2 and working with you to resolve this issue. Refer to page 12 of the ITA notes provided for the meeting minutes for next steps. Please remember, ITA is committed to following BCATTA protocols for instructor participation.

4. **Which other provinces are following the same Harmonized Program Outline as BC is presently striving to achieve?**

The goal is not to make each province exactly the same, but to *substantively align* apprenticeship systems across Canada by making apprenticeship training requirements more consistent in the Red Seal trades.

Harmonization is supported nationally. Please see the following links.

This is a link to a panel presentation on implementation of Harmonization that was given at the CAF Conference in 2018. Some of your Articulation Committee members attended this presentation.
https://caf-fca.org/wp-content/uploads/2018/06/A2_Path-to-Harmonization-FINAL.pdf

The following are links showing commitment to Harmonization federally
http://www.red-seal.ca/newsletter/.2bl.1st_.3nf.4fl.1sh_s.2pt2017-eng.html
http://flmm-fmmt.ca/initiatives/apprenticeship/
http://flmm-fmmt.ca/meetings-and-news/october-14-2016-flmm-meeting/

The following link shows Alberta's commitment to Harmonization
https://tradesecrets.alberta.ca/learn-on-the-job/apprentice-mobility-and-trade-harmonization/trade-harmonization/

The following link shows NETCO's commitment to Red Seal and Harmonization
http://www.netco.org/programs/red-seal

NETCO is Canada's National Electrical Trade Council.

As an alliance of the Canadian Electrical Contractors Association and the International Brotherhood of Electrical Workers in Canada, NETCO is the authoritative, pan-Canadian voice of electrical contractors and IBEW local unions representing apprentices and journeypersons in every province and territory.

NETCO's mandate is to promote national standards in electrical skills training and to advocate on policy issues of importance to our partner organizations.

5. **Which Provinces are following a different format of Harmonized content Alignment, how does their alignment compare to ours?**

Both Construction Electrician and Industrial Electrician are **Red Seal** programs, which means that we strive to substantively align to the **national** standard.

There are small variations to sequencing in some provinces and some deliver additional content that exceeds the national standard.

6. **How are the SLE's able to "use similar/same style and wording as the IP exam when content writers do not have access to the IP?**

Please see attached the rules of item construction used for Red Seal exam development and ITA exam development. ITA Program Standards staff have extensive experience with Red Seal product development and facilitate exam development workshops on a regular basis both nationally and provincially.

7. **Your presentation stated: "Although the pass rate is low (49%), students are failing the exam marginally at 69%"**

This does not make sense... The way I see it....if the class average is 69% and the pass rate is 49% then the majority of the student writes are below the 69% (mark 50% of them) and the other 50% are not much higher to make the overall average 69%
Here is the math:
50% of the class gets 60% on the exam and the other 50% gets 78% the exam average is 69%
Can we get a provincial breakdown for the level 1 and level 2 SLE's to number of writes that have scores that fall into ranges?

Example below

(16) achieved 40% - 49%
(23) achieved 50% - 59%
(132) achieved 60% - 69%

(83) achieved 70% - 79%
(22) achieved 80% - 89%
(13) achieved 90% -100%
(289) writes total

Please refer to page 10 of ITA notes provided for the meeting minutes. This comment refers to the provincial average score as related to the provincial pass rate for the level 1 exam only.

Detailed results and analysis have been discussed with Training Providers who had classes writes on the exams (please refer to page 9 of ITA notes provided for the meeting minutes). Detailed results for levels 1 and 2 can be found on pages 10 and 11.

Currently, analysis and breakdown of exam results would be a manual process for the Program Standards team and we have limited resources to do this work. Would this analysis provide the committee and ITA with information that could assist our collaborative efforts in improving the exam, the program, or the teaching/learning process? If so, could you let us know how this breakdown would be effective for system improvement?

Questions 8 and 9 have been answered by our Assessments Department and sent to the committee via email.

8. Can we be provided with a copy of ITA's COVID-19 procedures for the IP exam so that we can properly integrate them into our own?

9. What are the ITA sanitization procedures for the Code books that are being handed out, as well as the calculators etc.?

10. Once the student rewrites is the mark still blended?

** Candidates are not permitted to re-write a blended level exam unless they receive approval from both their school and the ITA.

The process is as follows:

1) Candidate will contact ITA requesting to re-write of their blended exam
2) In order for the request to move forward, the candidate must have passed their in-class portion of their technical training with at least 70% or higher
3) Assessments will email Training Provider and inquire if the TP will be willing to re-blend mark
4) Training Provider should review query internally with department/instructor of course.
5) If TP does not feel that the student should re-write, ITA will respond to candidate and advise of decisions
6) If TP agrees to re-blend, ITA will coordinate re-write of exam and send updated exam mark to TP to re-blend

Note: the most current OPSN regarding re-blends currently prohibits re-writes of the level exams. However, in an effort to reduce barriers for apprentices who may know the content of the course, but struggle with exam performance, we offer this an exception with the support of the training provider.

11. Could a student who passes the standard level exam but does not pass the level re-write to achieve a higher blended mark to pass?

We are unclear what this question is asking. Is there a specific concern with re-writes you would like us to address? Perhaps simply state the concern rather than posing a question and we can look at if we need to explore potential solutions together.

12. Could a student who passes the standard level exam but does not pass the level re-write to achieve a higher blended mark to pass?

We are unclear what this question is asking. Is there a specific concern with re-writes you would like us to address? Perhaps simply state the concern rather than posing a question and we can look at if we need to explore potential solutions together.

EIAC - CURRICULUM SUBCOMMITTEE

2019/20 Report

Prepared by Daniel Smythe: Chair
daniel.smythe@ufv.ca

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Overview:

The 2019/20 year has been a busy one! A lot of work has been done on student learning resources by members of the curriculum subcommittee and other members of our electrical instructors' community. Projects were undertaken in collaboration with both Trades Training BC, and Nelson publishing to develop resources for Level 3 Electrical Apprenticeship. In addition, a team worked on developing new Terms of Reference for the curriculum subcommittee which will provide a broader mandate for the future.

Level 3 ITA Binders

Development Process

In my update to the EIAC on June 4, 2019 I informed the group that there was, at that time, still no project approved to develop the harmonized Level 3 binder materials for students. TTBC had developed a project plan to get the ball rolling, but ITA had not yet given the go ahead for a project to be funded.

On June 12 I was notified by Pat Matthieu at TTBC that ITA had approved funding for a project to develop the student learning materials for Level 3. Due to other project commitments for the production team, and tight timelines, Pat decided to use a remote development/review process rather than the sprint format used on previous projects. Pat also decided that it was best to use a team of authors/reviewers who had worked on previous projects to maximize efficiency.

In the end the team of authors/reviewers included Joel Feenstra, Luke Skulmoski and I. Each of us began writing at different points in July/August and final drafts were due in mid-September. The demanding timeline made for an intense summer for the team, but we managed to get the new materials completed on time.

Challenges

The project suffered throughout as a result of having to cram a 1-year project into 6 months. However, the extraordinary efforts by the whole team ensured that the project was completed successfully, with materials available to students in late January 2020, rather than the original estimates of April/May 2020.

In addition to the overarching timeline challenges, a number of other challenges arose:

- Initially the decision was made by TTBC to write new materials to be aligned with the 2015 CEC which was still current law. However, a month into the project the official adoption of the 2018 CEC caused a lot of disruption, in particular for the Grounding and Bonding subject matter.
- The project scope (like the previous two levels) did not include the review and updating of the old binder material that was re-sequenced for the harmonized binders. As a result, the imperfections in the old materials have been reproduced in the new binders again.
- Formatting problems caused by file conversions on the old materials still caused problems in this project. This issue arose in previous projects too where, for example, formatting problems led the production team to reproduce all formulas as JPEGs to be embedded in the text.
- Efforts to ensure a full review process for newly authored materials were initially thwarted, resulting a very narrow window for the review to take place when it finally got approved.

- Production delays came about due to the Christmas break and also due to a longer than anticipated lead-time on the materials being turned around by Queen's Printer.

Overall Challenges with the ITA Binders

At this time all project funding for the development of the harmonized binders, and any future projects to review/update/correct the binder material is on an ad-hoc basis. There is still, to my knowledge, no cohesive strategy in place for the ongoing development and maintenance of the ITA student learning resources.

The consequences of this current state of affairs are significant. Below are some of the consequences I perceive:

1. Although students now have access to binders that substantially align with the program outline for Levels 1-3, there remain certain gaps that have not been filled, the binders contain a number of errors that are artifacts carried forward in the old material that was re-sequenced, and the binders contain material stretching across multiple editions of the CEC. At this time there is no plan or even strategy to mitigate this problem.
2. The CEC constitutes a major pillar in the training system in BC, and our student learning resources will be affected by each new edition of the CEC that is adopted as law by BC. Thus, the student learning resources need to be reviewed and updated after each new adoption, which could be as often and triennially. The longer there is no strategy to account for this, the more out of date the materials become.
3. Any review of, and subsequent changes to, the ITA Program Outline will need to be reflected in the student learning resources. The inefficiency and inertia of the current system poses a significant obstacle to this being done in a timely manner, should changes to the Program Outline be made.
4. At this time there is no project in place to develop the harmonized student learning materials for Level 4. This is the same position we were in last June with Level 3, and I am not certain that another high-intensity project to get the materials ready in 6 months is possible.
5. The current system leaves an ambiguous role for the curriculum subcommittee. Since TTBC acts as the authority on the projects, the curriculum subcommittee lacks a defined role in this sphere.

Level 3 Custom Nelson Publishing Textbooks

Development Process

Through the summer of 2019 five members of the curriculum subcommittee worked on mapping content from Nelson Publishing and American Technical Publishers to the Level 3 ITA Program Outline. Carmen DeGoey, Nathan Chapin, Jim Gamble, Peter Poeschek, and I drew mostly from ATP texts for the theoretical components, and from Nelson texts for the code heavy subjects.

The team met in person in August to finalize the mapping and work on developing the flow document for Nelson's custom team to begin work on producing the prototypes. Between then and now I have liaised with Nelson on an ongoing basis to deal with difficulties in the process as they arose. This was

particularly necessary as the project was Nelson's first collaboration with ATP in producing a custom text.

It was my hope that each institution would be able to receive a prototype of the custom text before articulation, but it is unlikely at this point.

Challenges

The main challenges in the project stemmed from the fact that it was Nelson's first custom text in partnership with ATP. The informational landscape was changeable as a result, and meant that certain expectations for the custom are not actually possible.

- The ATP texts are written with emphasis on NEC standards. Initially it seemed possible to edit down to the sentence level to alter the emphasis to a CEC perspective. Unfortunately, this later proved to be impossible based on ATP's content policy
- Gaps still exist in the materials that we drew from, making it an incomplete solution too
- The inability to edit down to a deep level on the materials still means the flow is not ideal, so that the texts are still "clunky"

New Terms of Reference

At the EIAC meeting in 2019 I noted the fact that the terms of reference for the curriculum subcommittee were out of date and did not reflect the true context. In the fall of 2019 Jeremiah Williamson, Nathan Chapin and I began work on re-writing the terms of reference to provide a broader mandate to the curriculum subcommittee and to align accurately with the current context. In early March, 2020 the final draft of the new terms was circulated to the rest of the curriculum subcommittee for feedback. The terms have now been circulated to the wider articulation group for review and approval at the upcoming EIAC meeting.

Point for consideration:

During review by the wider curriculum subcommittee one point was put forward for broader dialogue at the articulation level. The point for consideration pertains to membership, and can be framed as a question:

> Is it an appropriate membership requirement that all members of the curriculum subcommittee be familiar with, and have instructed in all four years of the ITA Construction Electrician Program Outline?

Challenges:

The current context offers some challenges for the curriculum subcommittee as an entity and, therefore, in developing appropriate terms of reference. In the current context, in which TTBC is the authority on projects related to the ITA binder materials, the curriculum subcommittee has no defined role in the process. The projects with Nelson Publishing evolved to offer a clearer role for the curriculum subcommittee, but that partnership may or may not persist.

In light of the current context it was our intent to give the curriculum subcommittee as broad of a mandate as possible, to allow for it to engage in a wide array of projects, with any given partner organization.

Conclusion

As I mentioned at the beginning, 2019/20 has been a very busy year! I believe that significant progress has been made in developing student learning resources that support the success of students across BC. However, significant obstacles to the long-term viability of these resources still remain. This is the case for the ITA binder materials, and even more so for the Nelson custom textbooks.

It is my hope that the new terms of reference will facilitate a future in which the subcommittee has a broader vision for its role. In the absence of a defined role, the mandate now allows the subcommittee more freedom to define itself through partnerships with any willing collaborator.

Thank you to all those who worked so diligently in service to the electrical apprenticeship students of BC. Your commitment to the good of the system as a whole is respected and appreciated.

EIAC Curriculum Subcommittee: Terms of Reference

1. Role/Purpose

The EIAC Curriculum Subcommittee is a standing subcommittee of the Electrical Instructors Articulation Committee. The subcommittee shall consist of subject matter experts in the electrical industry, who are experienced in instructing the curricula contained in the ITA Construction Electrician Program Outline.

The role of the committee is to identify and work with outside service providers, such as publishing or software companies, to facilitate the production and ongoing maintenance of reference material that is in alignment with the Construction Electrician Program Outline.

2. Term

These Terms of Reference are effective starting June 1, 2020 and will be ongoing until terminated by the Electrical Instructors Articulation Committee.

3. Membership

The EIAC Curriculum Subcommittee shall be comprised of a maximum of 13 members, with one member from each public institution. If an institution is not able to provide a member, that position may be filled by another institution, up to a maximum of two members from any one institution.

Members will be nominated and elected by the voting members of the EIAC at the annual articulation conference. It is recommended that members nominated be familiar with, or have instructed in all four levels of the ITA Construction Electrician Program Outline.

The term of membership will be one year. The subcommittee will elect a Chairperson each year, following the annual EIAC.

Members unable or unfit to complete their one-year term may submit a written resignation letter to the Chairperson, or be removed by a consensus vote of the EIAC Curriculum Subcommittee. If a suitable replacement candidate is available at that member's institution, this candidate may assume the outgoing member's position upon approval by the subcommittee.

4. Roles and Responsibilities

The EIAC Curriculum Subcommittee is accountable for the following.

- Providing appropriate subject matter expertise on the ITA Construction Electrician Program to outside service providers.
- Ensuring decisions are made for the good of apprentices and not for the benefit of any particular institution.
- Monitoring and reporting to the EIAC shall be on an as needed basis

5. The membership of the EIAC Curriculum Subcommittee will commit to:

- Attend and participate in all scheduled meetings of the subcommittee
- Respond to communications in a timely manner
- Maintain timely and transparent communication with outside service providers
- Participate fully and actively in the work of the subcommittee
- Complete tasks within established deadlines
- Make decisions in a timely manner
- Notify the other subcommittee members if any matter arises which may be deemed relevant to the ongoing role of the subcommittee
- Act as a liaison between the subcommittee and other appropriate faculty members at their respective institutions

6. Members of the EIAC Curriculum Subcommittee will expect:

- That each member will be provided with all communications and information pertinent to the working of the committee in a timely manner by the subcommittee chair
- To be given reasonable time to become informed on any issues and make educated decisions pertaining to any given project that the subcommittee is engaged in
- To be alerted to potential risks and issues that could impact the projects that the subcommittee is engaged in
- Ongoing reports from the subcommittee chair to verify the overall status of projects that the subcommittee is engaged in

7. Meetings

- All meetings will be chaired by the subcommittee chair
- Quorum will be 50% of the members of the subcommittee
- Decisions will be made by simple majority vote (50% +1) of those members present
- In the event of a tied vote, the subcommittee chair will make the final decision
- The subcommittee chair, with the collaboration of subcommittee members, will:
    - Prepare agendas and supporting information/documentation as required
    - Compile meeting notes and any additional information as required
    - Arrange catering for meetings as required