# Heavy Mechanical Trades Provincial Articulation Committee

### **MINUTES**

# BRITISH COLUMBIA COUNCIL ON ADMISSIONS AND TRANSFERS (BCCAT)

Virtual Online Meeting via ZOOM, BlueJeans, MS Teams and WebEx.

June 16 & 17, 2020

Chair: Jamie Ubell, University of the Fraser Valley (UFV)

Vice Chair: Doug Noble, Okanagan College

**Minute Recorder:** Alana Dallaire, UFV

# **Members Present:**

Name	Member Institution	Email
Bruce Thompson	British Columbia Institute of Technology	Bruce_Thompson@bcit.ca
Tony Upton	British Columbia Institute of Technology	aupton@bcit.ca
Bob Glover	Camosun College	gloverr@camosun.bc.ca
Mike Kerbrat	Coast Mountain College	mkerbrat@coastmountaincollege.ca
Grant Evenesheng	College of New Caledonia	evenesheng1@cnc.bc.ca
Randy Kempster	College of New Caledonia	kempsterr1@cnc.bc.ca
Spencer Mellor	College of the Rockies	mellor@cotr.bc.ca
Byron Beaupre	North Island College	Byron.Beaupre@nic.bc.ca
Doug Haycock	Northern Lights College	dhaycock@nlc.bc.ca
Doug Noble	Okanagan College	dnoble@okanagan.bc.ca
Bill Matzelle	Okanagan College	bmatzelle@okanagan.bc.ca
Andy Gullen	Selkirk College	agullen@selkirk.ca
Darren Watt	Trinity Western University	dwatt@tru.ca
Lyle Hirowatari	Trinity Western University	lhirowatari@tru.ca
Mike Shields	Trinity Western University	mshields@tru.ca
Don Weitzel	University of the Fraser Valley	don.weitzel@ufv.ca
Jamie Ubell	University of the Fraser Valley	jamie.ubell@ufv.ca
Russ Thompson	University of the Fraser Valley	russ.thompson@ufv.ca
Alan Kelly	Vancouver Community College	akelly@vcc.ca
Rick Cry	Vancouver Community College	rcyr@vcc.ca
Jason Sutton	Vancouver Island University	Jason.sutton@viu.ca
Paul Mottershead	Vancouver Island University	Paul.Mottershead@viu.ca

# **Member Regrets:**

Name	Institution	Email
Mark Mutter	British Columbia Institute of Technology	mark_mutter@bcit.ca
Keshwan Naidu	British Columbia Institute of Technology	knaidu1@bcit.ca
Lee Achremichuk	British Columbia Institute of Technology	lee_achtemichuk@bcit.ca
Art Williams	College of New Caledonia	williamsa26@cnc.bc.ca
Tony Yakun	North Island College	tyakun@nic.bc.ca

Ed Ditner	Northern Lights College	editner@nlc.bc.ca
Mark Scorah	Okanagan College	mscorah@okanagan.bc.ca
Brendan Frith	Vancouver Community College	bfrith@vcc.ca
Paul Cory	Vancouver Community College	pcory@vcc.ca
Brian Phillips	Vancouver Community College	bphillips@vcc.ca
Robert Riquelme	Vancouver Community College	rriquelme@vcc.ca

# **Guests Present:**

Name	Organization	Email
Fiona McQuarrie	BCCAT	fmcquarrie@bccat.ca
Chris Bey	ITA	cbey@itabc.ca
Colleen Rogan	ITA	crogan@itabc.ca
Rick Martineau	Consulab	rmartineau@consulab.com
Dave Gratton	Consulab	dgratton@consulab.com

# June 16, 2020 / 8:30 am / Welcome / Presented via ZOOM platform online

### Remarks from:

Jamie Ubell, Chairperson, UFV Faculty of Trades and Technology

- Welcomed everyone to the virtual meeting
- Review of the next two days and what platforms will be used
- The ZOOM meetings are curtesy of BCIT as they have a secure account that is why the invitation was from BCIT and not UFV or Okanagan College.

Doug Noble, Vice Chairperson, Okanagan College

- Thank you for venturing out of comfort zones with the online format
- Please share tips and ideas during this time

### 1. Meeting Called to Order

### 2. Approval of Agenda

**MOTION:** To adopt the Agenda as presented

Moved: Doug Noble Seconded: Tony Upton All in favor. CARRIED

### 3. Approval of Minutes of the Articulation Committee Meeting of June 11 & 12, 2019

**MOTION:** Acceptance of the Minutes as presented

Moved: Lyle Hirowatari Seconded: Alan Kelly All in favor. CARRIED

# 4. BCCAT Report / Fiona McQuarrie

BCCAT Report (See appendix A)

- Acting as a resource for an information sharing hub across the BC transfer system
- Shared link: https://www.bccat.ca/systemnews
- Joint Annual JAM meeting with be held completely online in November
- Increase in applications for schools who are already offering online formats of the Heavy Duty Mechanical programs
- No major changes in terms of cross province transfer due to COVID or in the last couple months

### 5. ITA Report / Chris Bey & Colleen Rogan

ITA Report see appendix B

- COVID -19 Update
  - o Thank you for adjusting to the new regulations
  - o SLEs are suspended submit only class marks
- Review of apprenticeship numbers
- SLE Statistics
- IPSE Statistics
  - o National rates are 56 minutes
  - o Provincial pass rates
- Review on how Chris examined the exams during a workshop with students

- 2020 Work from home and upcoming maintenance
- Red Seal Occupational Standard (RSOS) to confirm dates by Colleen and then add to minutes

Coffee Break – Switch to MS Teams for platform

### 6. Institutional Reports

For all Institutional Reports see appendices C-O

- Each institution presented a report on the school and programs. This included institutional updates, program changes, COVID-19 challenges, highlights, and items of interest.
- UFV Jamie Ubell
- TRU Darren Watt
- Okanagan College Doug Noble
- Selkirk Andy Gullen
- Camosun Bob Glover
- Vancouver Island University Jason Sutton
- Coast Mountain College Mike Kerbrat
- BCIT Tony Upton
- North Island College Byron Beaupre
- College of New Caledonia Grant Eveneshen
- College of the Rockies Spenser Mellor
- Northern Lights College Doug Haycock
- Vancouver Community College Alan Kelly

Lunch and Kahoot Challenge (winner – Grant Evenesheng CNC)

Switch to ZOOM platform

### 7. CDX presentation / Mark Murray

- Over 700 animations now available on CDX
- Mark reviewed some of the different animations and how to navigate the webpages
- Mark showed how to reformat and change questions
- If Institutions are missing different links or resources send an email to Mark and he will
  update it
- CDX Blog <a href="https://blog.cdxlearning.com/blog/all">https://blog.cdxlearning.com/blog/all</a>

Coffee Break – Switch to BlueJeans platform

### 8. SLP Report / Paul Mottershead

- No more than 8 students in a room at a time for testing at the ITA
- SLEs suspended
- Might need to pressure the ITA to complete IPEs for institutions that cannot host any tests
- Conversation about how to disinfect and how long the COVID-19 virus lasts
- Paul enforced instructors looking out for themselves as there is no real control over students and who they interact with on and off campus

- Discussion about making heavy duty face shields mandatory
- YouTube video on how BCIT Carpentry is meeting the COVID-19 requirements

Adjourned for the day at 2:39 pm

# June 17, 2020 / 9:00 am / Call to Order / Presented via BlueJeans platform

# 9. Group discussion of challenges moving forward in the current pandemic status

- Use of face shields for students and instructors instead of face masks and safety goggles
- A face shield to attach to baseball caps can be used instead of a face mask but still require safety goggles as they are not safety rated for the shop and only for COVID-19 protection: <a href="https://capshield.ca/">https://capshield.ca/</a>
- Clear tarps were discussed as two-way protection that is still visible through the barrier: <a href="https://www.grainger.ca/en/product/TARP%2CPOLYETHYLENE%2CTRANSPARENT%2C6X8FT/p/GGM2ZJ68?searchBar=true&nls=NLSAANA-2">https://www.grainger.ca/en/product/TARP%2CPOLYETHYLENE%2CTRANSPARENT%2C6X8FT/p/GGM2ZJ68?searchBar=true&nls=NLSAANA-2</a>
- Disinfectants were discussed and Jamie referred to the Government of Canada guidelines
  - o <a href="https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19.html">https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19.html</a>
  - o <a href="https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19/hand-sanitizer.html">https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19/hand-sanitizer.html</a>
  - o <a href="https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19/list.html">https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19/list.html</a>
- Bruce Thompson forwarded an email regarding Grassroot#2 disinfectant. Please see appendix P for the information
- Minimum hours for apprenticeship
  - o 500 hours of work hours for level I
  - o 1500 hours of work hours for level II
  - o 2500 hours of work hours for level III
  - o 3500 hours of work hours for level IV
- Students are not gaining enough time in the field practicing their skills
- Log books for Apprentices were discussed and encouraged to track, log and inform students and employers what the apprentices need to work on in their skills and experience
- UFV PAC discussed this and agreed log books should be implemented; next step is the Dean taking this to BCCAT.
- It is highly encouraged that other PAC include these discussions in their meetings so they can be included in the recommendation that will be sent to the ITA

Break – Switch to MS Teams platform

### 10. Consulab presentation on After treatment systems

• See appendix Q

Lunch and Kahoot Challenge (winner – Andy Gullen Selkirk College)

Switch to WebEx platform

### 11. Jaltest Diagnostic Tools Presentation

See appendix R - V

# Wayne "Ollie" Olafson

BC Interior Sales Unit 5 - 4320 29th St. Vernon, B.C. V1T 5B8

### J-Ball Electronics Inc.

Mobile: 250-868-6576 Toll-Free: 1-855-326-8863 www.jballelectronics.com

Switch to ZOOM platform for the remainder of the meeting

# 12. 2021 Articulation Planning

- 2010 Okanagan College
- 2011 Vancouver Island University
- 2012 University of the Fraser Valley
- 2013 University of British Columbia
- 2014 College of New Caledonia
- 2015 North Island College
- 2016 Okanagan College
- 2017 British Columbia Institute of Technology
- 2018 Thompson Rivers University
- 2019 University of the Fraser Valley
- 2020 Virtual (supposed to be Selkirk)

### 13. Location for next meeting

2021 Northern Lights College in Fort St. John pending approval of face-to-face meetings

 June 15<sup>th</sup> and 16<sup>th</sup> 2021
 Tour of the Site C Dam | Clean Energy Project

**MOTION:** The 2020-2021 HMT Articulation be on the 15<sup>th</sup> and 16<sup>th</sup> of June on the Fort St. John's campus at Northern Lights College.

Moved: Doug Haycock Seconded: Bruce Thompson All in favor. CARRIED

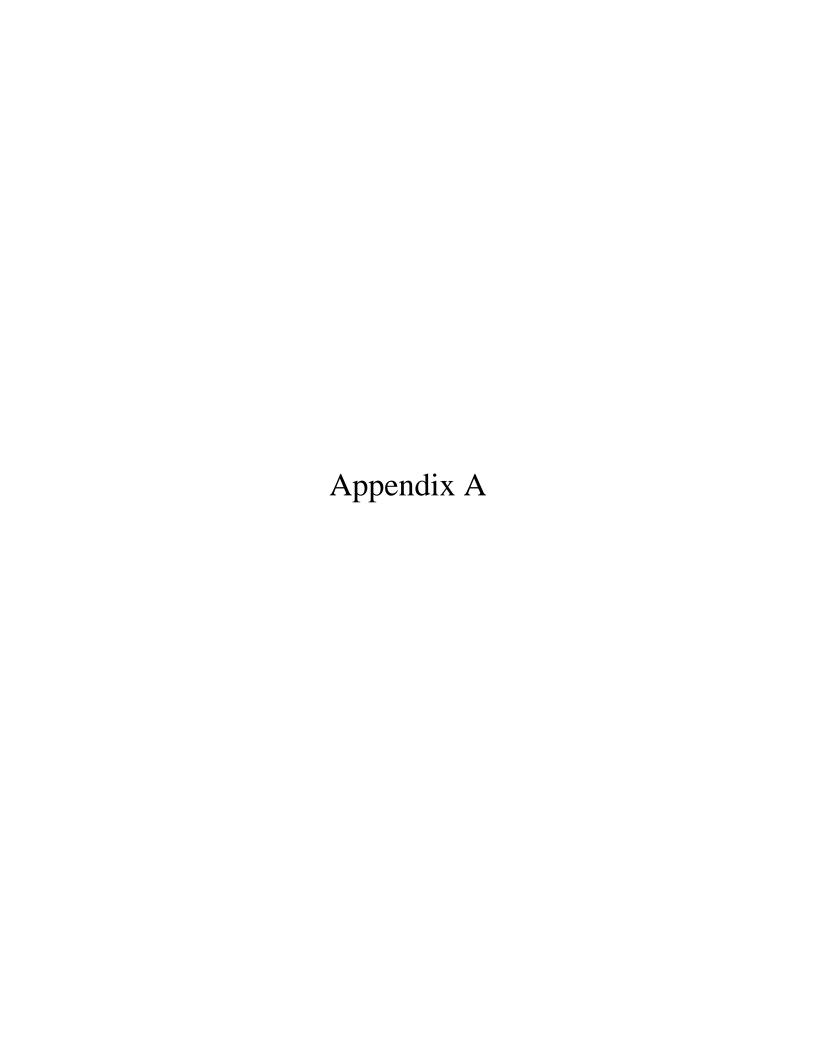
### 14. Suggestions for Presenters

- Doug suggested Fuel Injection Operations presentation from BOSCH or SEIMENS
- Common errors in the industry maybe a trainer from Grand Tractor
- Bruce Thompson suggested Cummings Products as he has an instructor who used to work for them
- High Pressure Common Rail with BCIT instructor

**MOTION:** To adjourn the meeting

Moved: Jason Sutton Seconded: Lyle Hirowatari All in favor. CARRIED

Adjourned at 2:55 pm



# BCCATSPRING UPDATE 2020



# TRANSFER & ARTICULATION-RELATED ACTIVITIES

### **JAM 2020**

This year's Joint Annual Meeting (JAM) will be held at the **Pinnacle Harbour-front Hotel in Vancouver on Friday, November 6, 2020.** Registration will commence in early September.

Last year's presentations and video can be viewed on the <u>BCCAT JAM webpage</u>.

### 2020 BCCAT Transfer Awards

Calls for nominations are requested for the **2020 BCCAT Transfer Awards** which will be presented at the JAM to honour key contributors to the success of the BC Transfer System. Nomination forms will be available in late spring.

# Flexible Pre-Majors in the BC Transfer System

At its last meeting, BCCAT's Transfer and Articulation Committee (TAC) passed a motion that BCCAT will no longer support flexible pre-major (FPM) transfer agreements in the BC Transfer Guide. After August 1, 2020, the FPM information on the BCTG site will be labeled "for reference only".

Individual post-secondary institutions or programs may continue to honour FPM agreements with other institutions or programs. However, these agreements will not be updated on the BCTG.

If articulation committees or institutions wish to replace FPM agreements with other types of transfer, BCCAT will assist.

# ARTICULATION COMMITTEE PROJECTS (ACP)

# Articulation Committee Project (ACP) Funding Replaces Transfer Innovations (TI) Funding

Under the newly-named program, a Call for Proposals was issued in February. Project proposals are to be submitted by August 21, 2020, for evaluation by BC-CAT's Transfer and Admissions Committee (TAC) at its September 2020 meeting.

The funding is now called the Articulation Committee Project (ACP) funding program. It will support research by articulation committees into transfer-related issues as well as research leading to new forms of transfer agreements. The application process has also been redesigned to be more rigorous.



# Modern Languages (SCOLA) Core Competencies and Test Banks:

This project was the final Transfer Innovations project and was approved for publication in January 2020. The documents lists core competencies in beginner-level Chinese, Spanish, Italian and French are now posted on the SCOLA committee webpage.

# TRANSFER & ARTICULATION PROJECTS

### Stepping Out - Mid-Program

This project explores students' practice of "stepping out" to earn transfer credits at a second or additional institution,

while continuing in a program at their first institution. The report describes the trends and patterns of "stepping out" by program, credential, institution and transfer credit volume.

### **Stale-Dated Credit**

This study examines policies related to stale-dated credit at the thirty-nine BC Transfer System member institutions and provides recommendations on policies for post-secondary institutions.

# Examining the Extent of Unarticulated Courses

This study examined the extent of unarticulated courses available within the BC Transfer System, and courses that are articulated at different year levels. In total, approximately 46% of courses offered are not articulated. In addition, approx. 23% of courses articulate across year levels.

### **NEW BCCAT PUBLICATIONS**

BCCAT Publications are available on our website at BCCAT.CA

# Block Transfer Agreement Implementation and Communication

This project was published in November, 2019. The aim of the report is to assess institutional practices of defining, implementing and communicating block transfer agreements at BC Transfer System member institutions.

# **Applying Credit to Multiple Credentials**

This report examined the extent and options in which BC post-secondary institutions allow students to use credit that that had already been applied towards earning one credential as credit towards another credential at the same or lower level. The project described issues arising from the this practice. The report was published early this year.

# ONGOING PROJECTS OF INTEREST

# BC Transfer Students Profile and Performance Report

BCCAT has produced Transfer Student Profile and Performance reports for over 25 years. The reports compare the demographics and the performance of transfer and direct entry students at large receiving universities within the BC Transfer System.

This current report, covering years 2013/14 to 2017/18, is expected in spring 2020.

### **Credits to Graduation**

This project provides a measure of transfer system efficiency by comparing the number of credits required to complete a degree by students who transfer, and those who do not. It revisits previous research using new data sources. The report will be published in April 2020.

### **Surveying Mobile Students in BC**

Institutional data extracts for the 2019 BCCAT Survey of Mobile Students were made available to Institutional Research offices at each of the BC public post-secondary institutions. These files were produced in response to requests for data to supplement the previously released institutional reports, and to support further analysis at institutions.

More than 4,500 students answered questions about their experience of transferring between post-secondary institutions. The complete, system-wide report is due to be released in Fall 2020.

### **Dual Credit PSE Performance**

Utilizing survey data, performance data at four BC institutions, and interviews with staff at school districts and post-secondary institutions, this project describes the experiences and performance of students completing at least one dual credit course in an academic area and transitioning to post-secondary studies. The report will be published in the spring of 2020.



# Trends in Competency-Based Credentials within the Admissions Process

This project seeks to summarize current and emerging trends in the incorporation of competency-based credentials in the post-secondary admissions process in BC and elsewhere, and to identify areas for future research to support the development of policy and practices at BC Transfer System Institutions. Look for this report in summer 2020.

### **TCS & BCCAT WEBSITES**

### The TCS Suite

Following the pilot study with UBC to onboard their agreements outside of the BC Transfer System to the Transfer Credit System (TCS), external course equivalencies in the TCS continue to expand. Douglas College, UNBC, and OC have onboarded, with several other institutions currently in progress.

Discussions are ongoing with provincial counterparts, in particular ACAT, to share and leverage the work taking place in that jurisdiction. Work is continuing on a new version of the TCS, aptly named the "Atomic" TCS, which will improve data management and highlight greater articulation opportunities.

### **Articulation Maintenance**

As the result of a Transfer Credit System (TCS) course audit in 2019, it has become evident that the maintenance of articulation agreements has become a challenge for many BC Transfer System members.

BCCAT will be working with the articulation committees and their institutions to identify agreements that have not been reviewed in ten or more years, with a goal of increasing the currency of articulations within the BC Transfer Guide.

If your articulations have not been reviewed in ten or more years, you can submit your courses for re-evaluation through the TCS. This helps ensure students receive the appropriate credit when they transfer.

### BCTransferGuide.ca

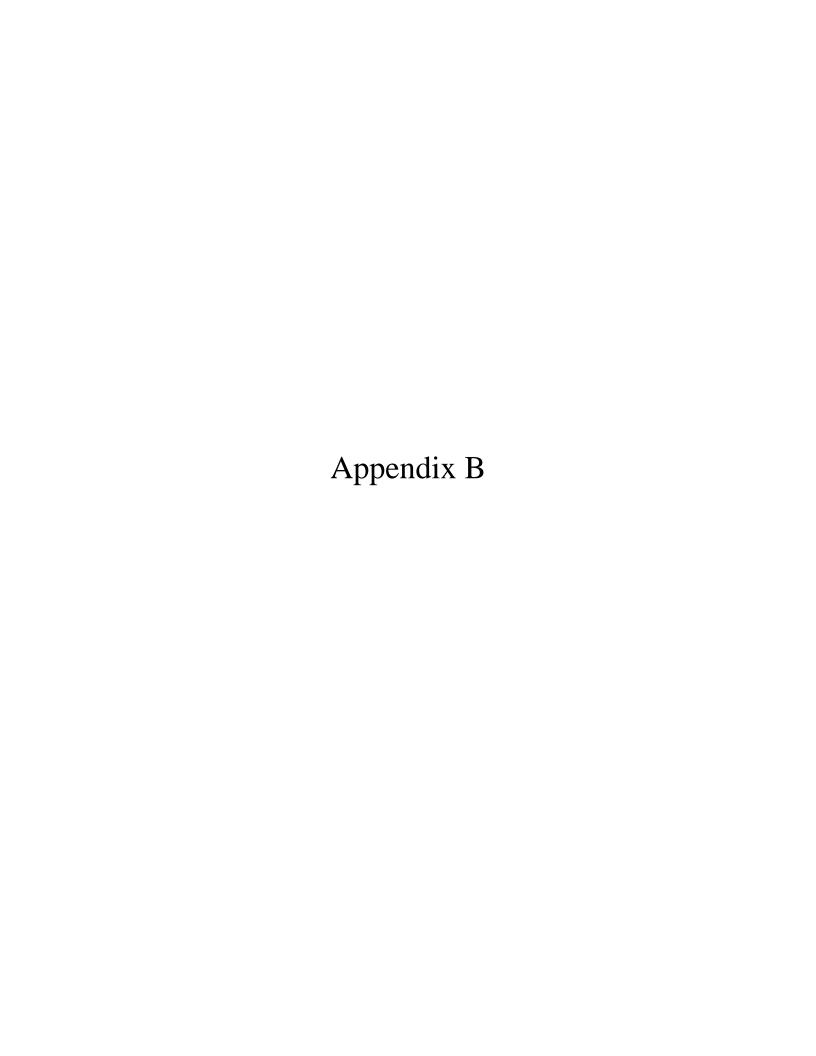
Following a useability report conducted in 2019, BCCAT will be continuing its work on enhancements to the BC Transfer Guide, with more significant changes and a re-design planned for later this year.

### BCCAT.ca

BCCAT's new website incorporates refreshed graphics, and enhanced search functionality for publications.

The articulation section of the site includes a new alphabetical listing of articulation committees and an articulation committee meeting calendar as an aid to scheduling.







Heavy Mechanical Trades Articulation Committee Meeting ITA update
June 15-16, 2020

# **Agenda**

- 1. COVID-19 Update
- 2. Apprenticeship Numbers
- 3. SLE Statistics
- 4. IPSE Statistics
- 5. 2020 SLE Work and Upcoming Maintenance





# **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.
- 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).
- Certification exams (Interprovincial Exams) will continue. Exam sessions will follow current Provincial Health Officer (PHO) and BC Centre for Disease Control requirements.
- More info: <a href="https://www.itabc.ca/covid-19">https://www.itabc.ca/covid-19</a>





# **Apprenticeship Status – HDET Old**

Apprentices in System						
Active	15					
Inactive	82					
Total	97					

Highest Level Achieved										
L1 L2 L3 L4										
Active	0	0	0	15						
Inactive	0	0	2	80						
Total	0	0	2	95						



# **Apprenticeship Status – TTM Old**

Apprentices in System							
Active	10						
Inactive	30						
Total	40						

Highest Level Achieved									
L1 L2 L3 L4									
Active	0	0	0	10					
Inactive	0	0	0	30					
Total	0	0	0	40					



# **Apprenticeship Status – DEM Old**

Apprentice in System						
Active	4					
Inactive	12					
Total	16					

Highest Level Achieved							
L1 L2							
Active	0	4					
Inactive	0	12					
Total	0	16					



# **Apprenticeship Status – HDET New**

Apprentices in System						Арр	rentice	s by R	egion			
Active			171	2			0TT	L1	L2	L3	L4	Total
Inactive 770				North	267	141	94	75	35	612		
Total 2482				SE Interior	200	157	112	88	40	597		
Highest Level Achieved					Island	134	122	56	58	50	420	
Active	<b>0TT</b> 430	<b>L1</b> 472	<b>L2</b> 365	<b>L3</b> 293	<b>L4</b> 152	Lower Mainland	266	189	144	120	51	770
Inact.	473	151	51	62	33	Other	34	14	10	14	9	83
Total	903	623	416	315	185	Total	903	623	416	355	185	2482





# **Apprenticeship Status – TTM New**

Apprentices in System						App	rentice	s by R	egion			
Active			822	2			0TT	L1	L2	L3	L4	Total
Inactive 400				North	102	36	30	49	16	233		
Total 1222					SE Interior	103	44	41	29	18	235	
ŀ	lighes					Island	26	15	14	27	8	90
Active	<b>0TT</b> 207	L1 177	<b>L2</b> 163	L3 172	<b>L4</b>	Lower Mainland	214	131	119	99	73	636
Inact.	246	54	47	37	16	Other	8	5	6	5	4	28
Total	453	231	210	209	119	Total	453	231	210	209	119	1222





# **Apprenticeship Status – DEM New**

Apprentice in System		
Active	89	
Inactive	53	
Total	142	

Highest Level Achieved			
	0	L1	L2
Active	29	30	30
Inactive	29	14	10
Total	58	44	40

Apprentices by Region				
	0	L1	L2	Total
North	13	14	11	38
SE Interior	7	2	5	14
Island	5	6	3	14
Lower Mainland	31	21	19	71
Other	2	1	2	5
Total	58	40	40	142





# **Apprenticeship Status – TTT**

Apprentices in System			
	OLD	NEW	
Active	1	34	
Inactive	0	39	
Total	1	73	

riigilest Level Adilieved - NEW			
	0TT	L1	L2
Active	21	9	4
Inactive	31	3	5
Total	52	12	9

Highest Level Achieved - NEW

Apprentices by Region – NEW				
	0TT	L1	L2	Total
North	5	0	1	6
SE Interior	6	1	0	7
Island	0	1	0	1
Lower Mainland	41	10	8	59
Other	0	0	0	0
Total	52	12	9	73





# **HMT Level 1 SLE Stats**

# Avg % by GAC 75 72 74 71 63 69 75 A B C D E F G J

Results are for first-time writes for those writing with a class.

# Pass Rate:

61% (232 writes)

# **Average Score:**

71%

# 2018 Results:

62% Pass Rate 72% Average Score

# 2017 Results:

46% Pass Rate 68% Average Score







# **HMT L2 SLE Stats**

# Pass Rate:

69% (529 writes)

GAC D	75%
GAC H	75%

Results are for first time writes for those writing with a class.

# **Average Score:**

75%

# 2018 Results:

65% Pass Rate 73% Average Score

# 2017 Results:

50% Pass Rate 69% Average Score







# **HMT L3 SLE Stats**

Pass Rate:

68% (418 writes)

**GACI** 

73%

**Average Score:** 

73%

Results are for first time writes for those writing with a class.

2018 Results:

67% Pass Rate 73% Average Score

2017 Results:

65% Pass Rate 72% Average Score



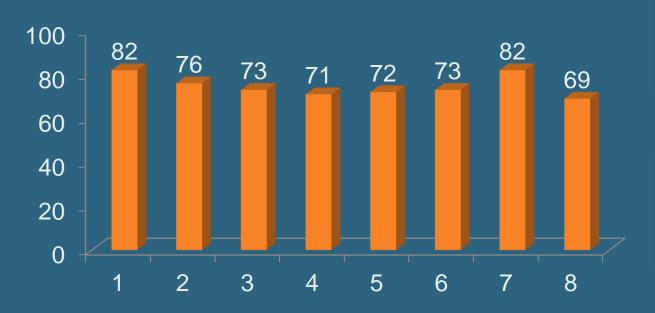




# Interprovincial Exam Stats - HDET

Jan 2019 - Dec 2019

# **Provincial Average % by BLOCK**



National Pass Rate:

61%

**Provincial Pass Rate:** 

75% (232 Writes)

**Provincial Avg Mark:** 

74%

BC results are for first-time writes for those writing with a class. National results include both apprentice and challenger writes.







# **Interprovincial Exam Stats - TTM**

Jan 2019 - Dec 2019

# **Provincial Average % by BLOCK**



National Pass Rate:

43%

**Provincial Pass Rate:** 

72% (131 Writes)

**Provincial Avg Mark:** 

74%

15

**Note**: BC results are for first-time writes for those writing with a class. National results include both apprentice and challenger writes.



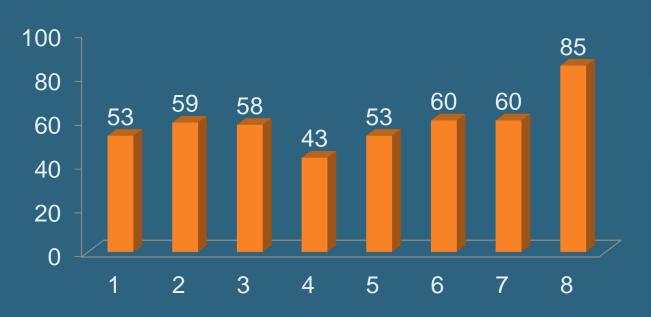




# **Interprovincial Exam Stats - TTT**

Jan 2019 - Dec 2019

# **Provincial Average % by BLOCK**



**Note**: BC results are for first-time writes for those writing with a class. National results include both apprentice and challenger writes.

**National Pass Rate:** 

21%

# **Provincial Pass Rate:**

BC Pass Rate unavailable due to small cohort number. (5 Writes)

**Provincial Avg. Mark:** 

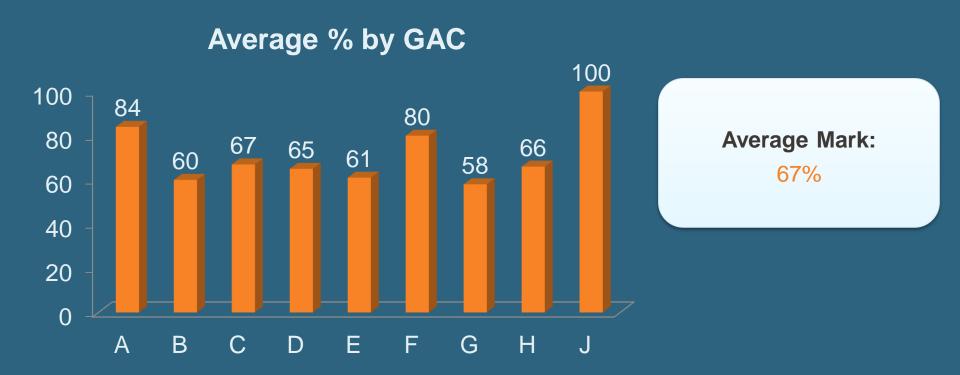
56%





# CofQ Exam Stats – DEM (HMT)\*

Jan 2019 - Dec 2019



Results are for first-time writes for those writing with a class.

<sup>\*</sup> Maintenance for the DEM CofQ is planned for 2020. The number of questions on the current exam will be reduced (Please see notes).





# Fall-Winter 2019:

- Met with Training Provider (TP) to discuss SLE difficulty level and sequencing of HMT program content.
  - Heard concerns regarding language barriers for English as Additional Language (EAL) apprentices on SLEs
- Performed statistical item analysis (statistical breakdown of question performance) of all 700 items across all 3 levels of SLEs
- Item-by-item analysis of all apprentice comments from 2017-2019 exam writes up to December 2019

- Quality Assurance notes for all 400 L2-3 SLE items
- Flagged any poorly performing or heavily-commented-on item for special attention



# **Winter 2020:**

- Met with 5 Instructors from 4
   TPs for 5-day SLE Exam Peer

   Review of all current Level 2-3
   SLEs (Jan 20-24, 2020). In this workshop:
  - Instructors "Took" exam #1 of Level 2 SLE, individually answering all 100 items
  - Group reviewed exam and Instructor answers item-by-item.

- Group looked at statistical performance of each, and checking each item for clarity, accuracy of answer, and quality of supporting diagrams
- Instructors paid special attention to mitigate any language barriers for EAL apprentices in questions.
- Process repeated for Level 3 until all 400 items across both were reviewed completely.
- Instructors and facilitator were happy with work and satisfied all exams now have increased clarity and accuracy.



# Winter 2020 continued:

 Following request of Instructors and apprentices, a more detailed exam weighting chart was developed and posted to ITA's HMT trade page. Example:

ORIGINAL	
Level 2 SLE	
D. ELECTRICAL	25%
H. ENGINES AND SUPPORTING SYSTEMS	75%

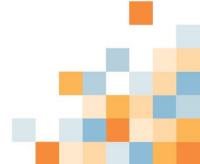
UPDATED GAC D			
	Level 2 SLE		
D.	ELECTRICAL	25%	
D5.	Diagnose and Repair Charging Systems	5%	
D7.	Diagnose and Repair Starting Systems	5%	
D9.	Diagnose and Repair Electrical Component Systems	3%	
D10	Diagnose and Repair Electronic Component Systems	7%	
D1′	Diagnose and Repair Vehicle  Management Systems	5%	



# **Spring-Summer 2020**:

- 3-Day SLE Exam Peer Review for HMT Level 1 had been scheduled for April 15-17 but was postponed due to COVID-19.
  - This review will follow the same process as outlined above and will be re-scheduled for Summer 2020 depending on Provincial Health guidelines.





# Process for ITA to obtain Instructor SME participants

- 1. ITA makes a request to the HMT 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 HMT 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!





# Please send questions through committee chair to Chris Bey <a href="mailto:cbey@itabc.ca">cbey@itabc.ca</a>

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.

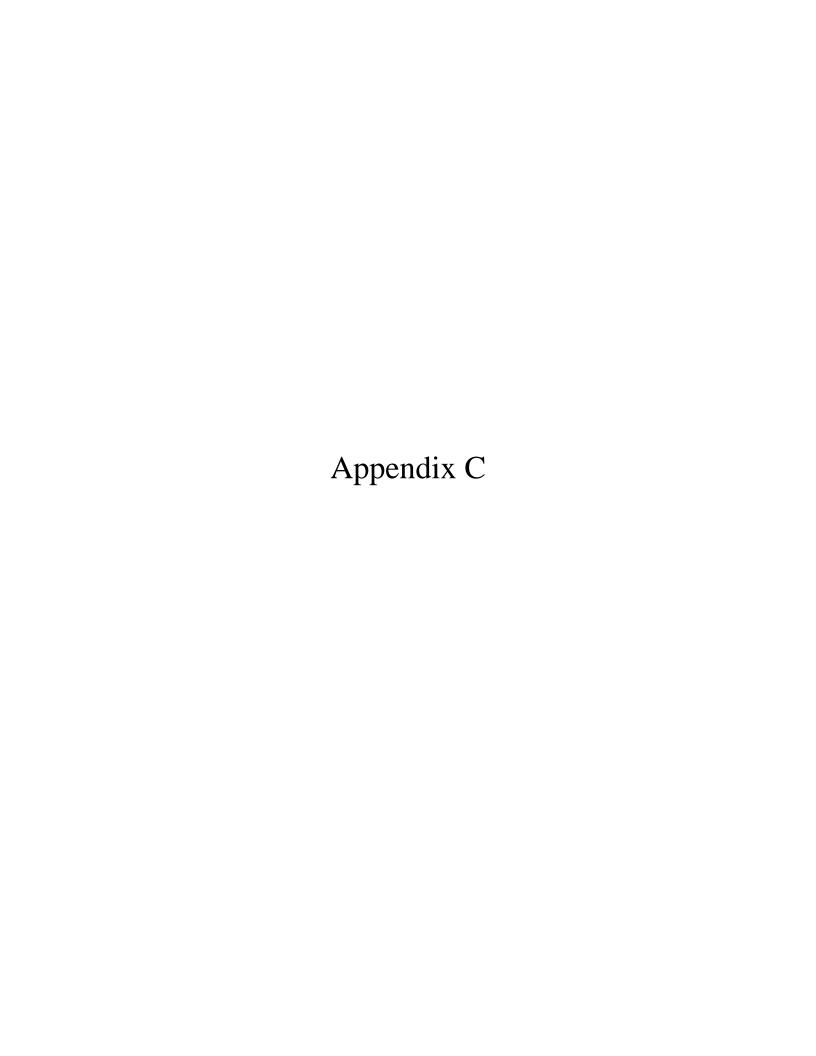






itabc.ca





### **Heavy Mechanical Articulation**

# **INSTITUTIONAL REPORT**

### **BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)**

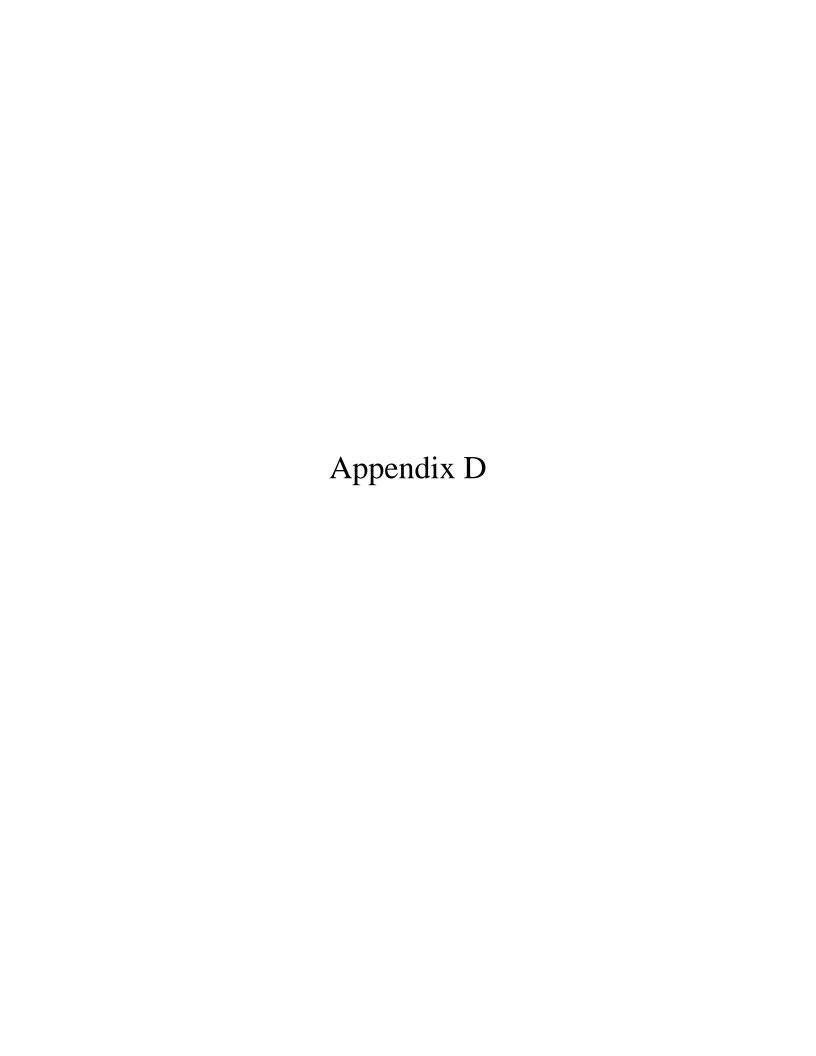
May 25,	26 2020	
Univers	sity of the Fraser Valley	
,		
Jamie Ubell	Jamie.ubell@ufv.ca	

### 1. Institutional Update

- We have a separate building solely for HM training. 25,000 sq ft and a 2.5 acre yard space.
   Budget has been consistent for the past several years
- We run two foundation classes of 18 (generally merged into one class of 36 and two instructors that team-teach). Foundation runs Sept thru May. We also run one stream of Apprentice Levels from sept to May: Sept L4C, Oct-Dec L1, Jan/Feb L2, March/Apr L3 and Apr/May L4H (16 students)
- Staffing: 3 full-time Instructors and 1 Program Technician

# 2. Program/Course Update

- Curriculum Development: Have been using CDX based moodle training for homework. In both Foundation and Apprenticeship. This will become more prevalent with the future
- Transfer Credit Applications or Alterations
- Issues: Online learning is not for every student, as it requires dedication and self discipline. Technical issues are always present.
- Research/Projects: Jamie Ubell will be on a sabbatical from Sept 2020 thru August 2021 and is doing a research project on biodiesel
- 3. Other Items of Interest: Covid has brought in a new era of training. Here at UFV, we plan on delivering all theory via online lectures and more involvement using the CDX moodle platform. In shop training will be done in smaller numbers and spaced out over longer hours to allow for distancing and health concerns



## **INSTITUTIONAL REPORT**

### **BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)**

Meeting Date(s): 16-17 June 2020

Institution/Campus Location: Thompson Rivers University

Kamloops, BC

Name: Lyle Hirowatari Email: <a href="mailto:lhirowatari@tru.ca">lhirowatari@tru.ca</a>

Darren Watt Email: dwatt@tru.ca

#### 1. Institutional Update

- General: Thompson Rivers University faces challenges as any other institution in BC.
   Budget, space utilization, tooling requirements.
- Budgets/Facilities: Budgeting "Central Budgeting", Could use more space.
- Students/Enrollment: In the 2019-2020 year the following programs were scheduled.

HMG 1, 4 classes

HMG 2, 4 classes

HMG 3, 4 classes

HD 4, 2 classes

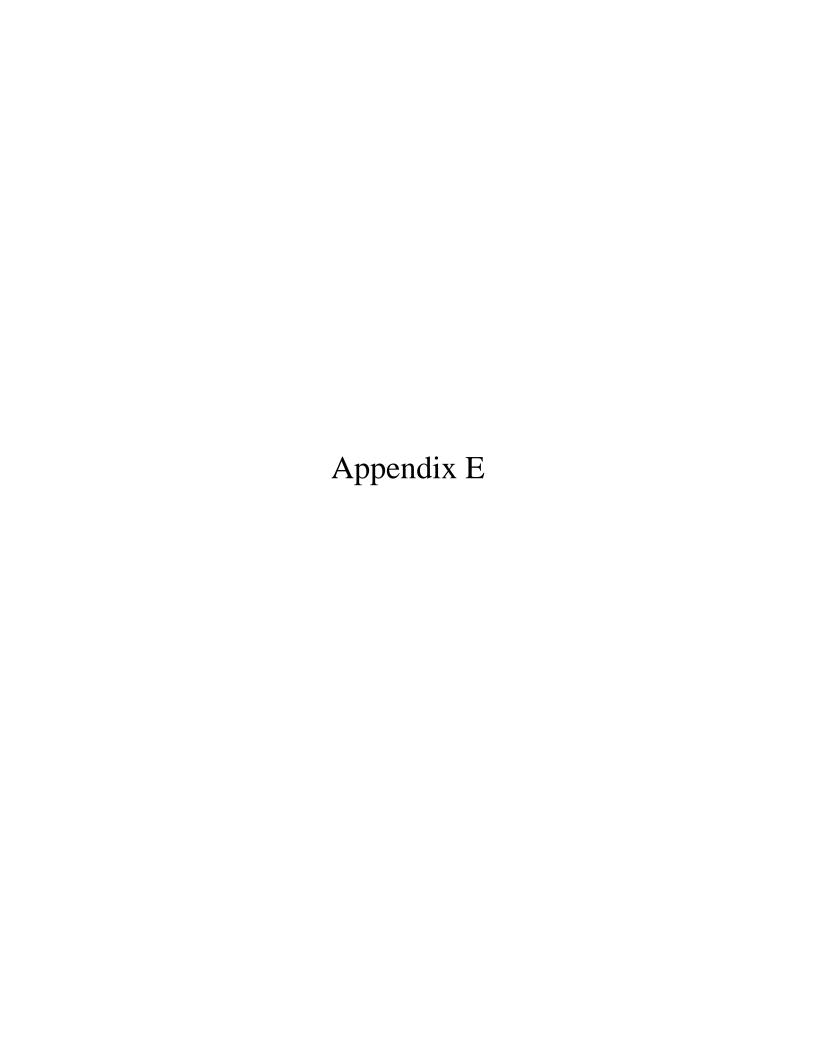
TRK 4, 1 class

Foundation, 3 classes

Enrollment has been very good, full classes of 16 in Apprenticeship & 18 in Foundation.

- Staffing: 2 Apprenticeship Instructors, 3 Foundation Instructors
- Instruction/Open Education Resources: Using CDX text & Online CDX supporting media.

- Curriculum Developments: Use of CDX materials. Text books, workbooks & online training.
- Transfer Credit Applications or Alterations: N/A
- Issues: Budgeting to purchase equipment, supplies (Centralized Budget), Space Utilization, Tooling Requirements.
- Research/Projects: Building mechanical modules to support learning. Ongoing
- **3. Other Items of Interest:** Covid-19, Finding challenges to adapt theory to online delivery and practical with "social distancing measures".



#### **Okanagan College**

## INSTITUTIONAL REPORT

### **BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)**

25/05/2020	
Kelowna	
Doug Noble	email: dnoble@okanagan.bc.ca

### 1. Institutional Update

General

We have had a strong year with enrollment, we had 3 foundation classes running and 2 streams of apprenticeship.

- Budgets/Facilities
  - Are operating budget remained the same for this year around 120K with little to no Capital
- Students/Enrollment

Enrollment was strong, I am not sure where we sit post COVID

- Staffing
  - Nothing has changed there are 5 full time instructors (3 foundation and 2 apprenticehip) Still struggle to find subs and most are older and only ok for a few days at a time.
- Instruction/Open Education Resources
   We still offer the air brake endorsement and the CVIP course around 6-8 times a year

### 2. Program/Course Update

Curriculum Developments

Majority of our CD time has been spent matching tests to the CDX book Other times have been spent making a set of PP for subs to follow they have extra notes and explanations in them to make it easier for when our subs or new hires step in for a few days here and there.

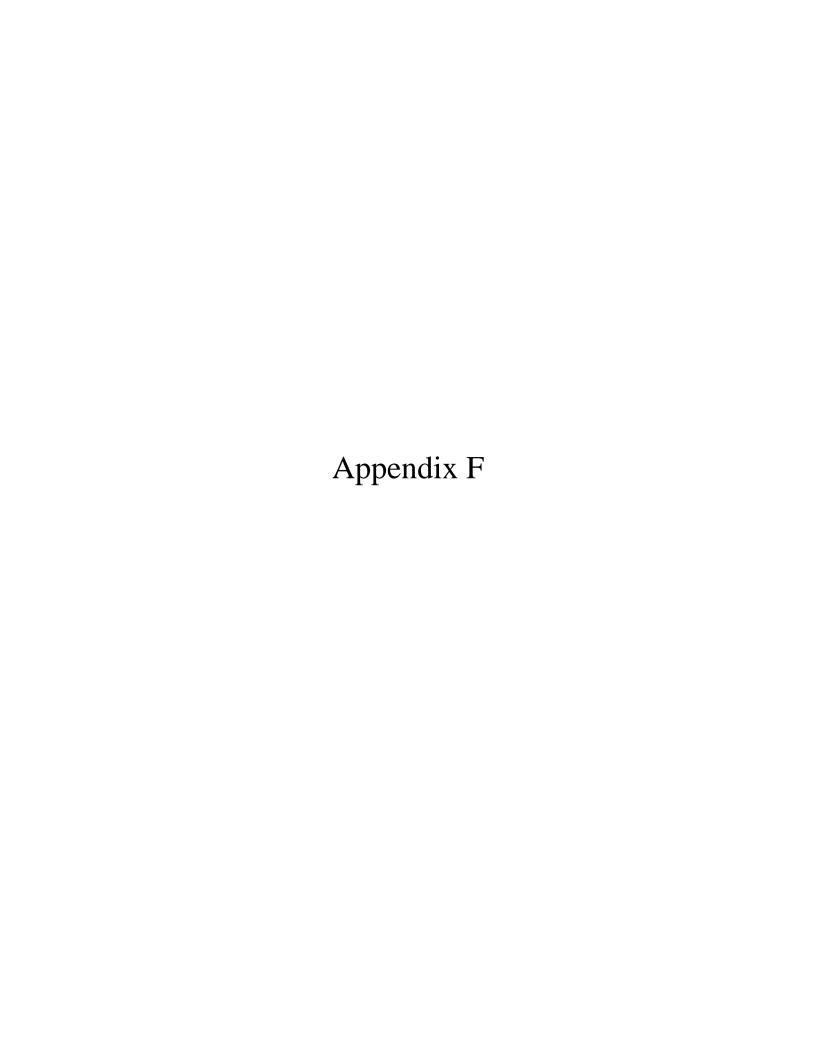
Also making training aids

- Transfer Credit Applications or Alterations
   None at this time
- Issues
   Other then COVID we have had little issues
- Research/Projects

None

#### 3. Other Items of Interest

COVID related we are told that we will resume teaching June 29<sup>th</sup> (Subject to change) Remote delivery will remain in place for theory but practical will commence again at this point. OHS is doing a walkthrough of our shops this week to verify space requirements and to give us the green light to proceed. There are still details that need to be ironed out such as who will be in the shop and how many classes at a time, lockers and bathrooms will also need to be addressed. We have also been told that there could be classes during the day, afternoons, and possibly weekends. Toolroom will be another contentious issue but sounds as if only 2 students in the room at any time and they will return tools to a table located outside the toolroom and they will be sanitized then put back in inventory.



#### **Heavy Mechanical Articulation**

## INSTITUTIONAL REPORT

#### **BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)**

May 25,26 2	2020
Selkirk Colle	ge
Andy Gullen	agullen@selkirk.ca

### 1. Institutional Update

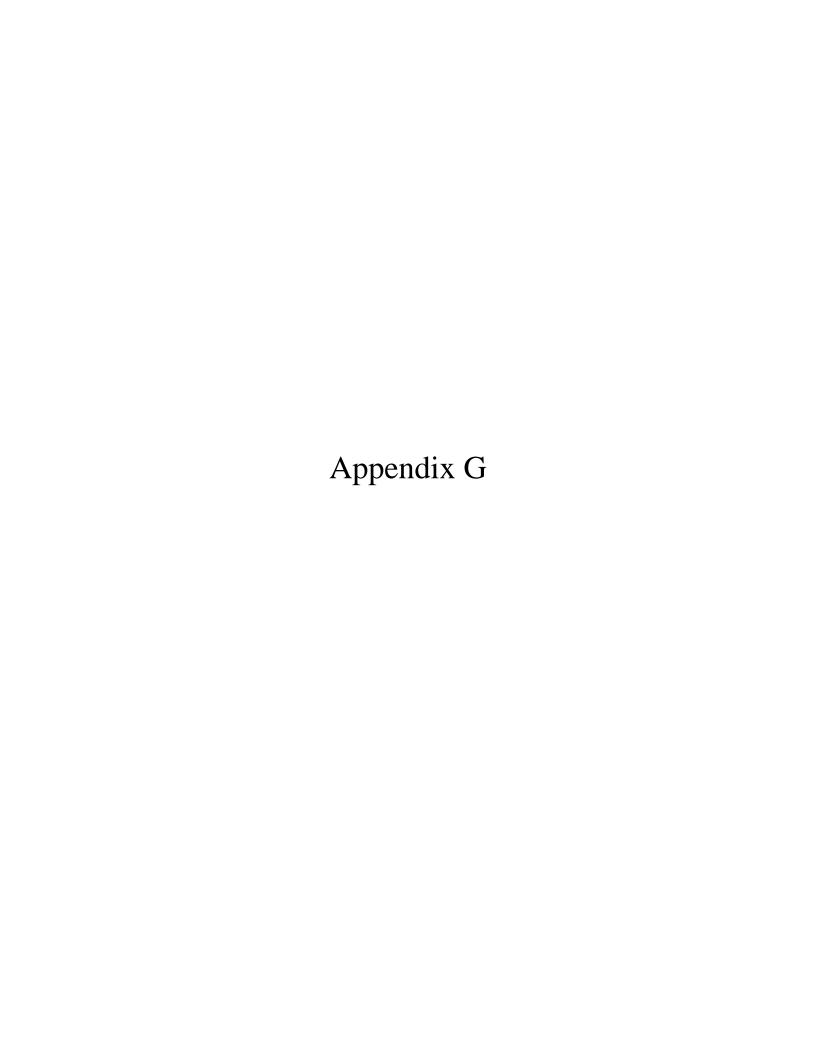
- This will be my final year of full time teaching, and meeting for Articulation has always been a
  great experience to network and learn from each other. And we are pretty good at drinking
  beer.
- Facilities and Budgets remain strong, Our 4 year renovation has finally reached completion, and I am satisfied with our new shop space and compound. Budgets may need adjustment in light of new challenges.
- Student cohort is generally 50% Youth in Trades , to a maximum of 18 students, enrollment will be adjusted this year due to Covid.
- Staffing, Posting for a full time Heavy Mechanical Instructor is out, think about it!
- Instruction will be done online, via Zoom, front loading theory.

- Curriculum Development: Migrating all learning materials to online, using document cameras, video clips, and other reputable instructional sources. Testing, Grades, Assignments done via Moodle.
- Transfer Credit Applications or Alterations
- Issues: Online learning is not for every student, as it requires dedication and self discipline. Technical issues are always present.
- Research/Projects: Developing online as we all know is very time consuming and a different road for most of us, learning different strategies as we go.
- 3. **Other Items of Interest:** If nothing else, it has certainly broaden our skill set for course delivery! We will be delivering all classroom theory online. We have been working with our Health and Safety

committees. We are instituting safe distance work spaces in our shop, minimizing contact with Toolroom attendents, using sanitation and disinfecting tools as they are placed in common areas of the shop.

4. Enrollment may be reduced, depending on distancing regulations and practicality.





#### **Heavy Mechanical Trades Provincial ARTICULATION COMMITTEE**

## **INSTITUTIONAL REPORT**

#### BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)

Meeting Date(s): June 2020?

Camosun College/Interurban Campus/Victoria

Name: Robert Glover email: gloverr@camosun.bc.ca

### 1. Institutional Update

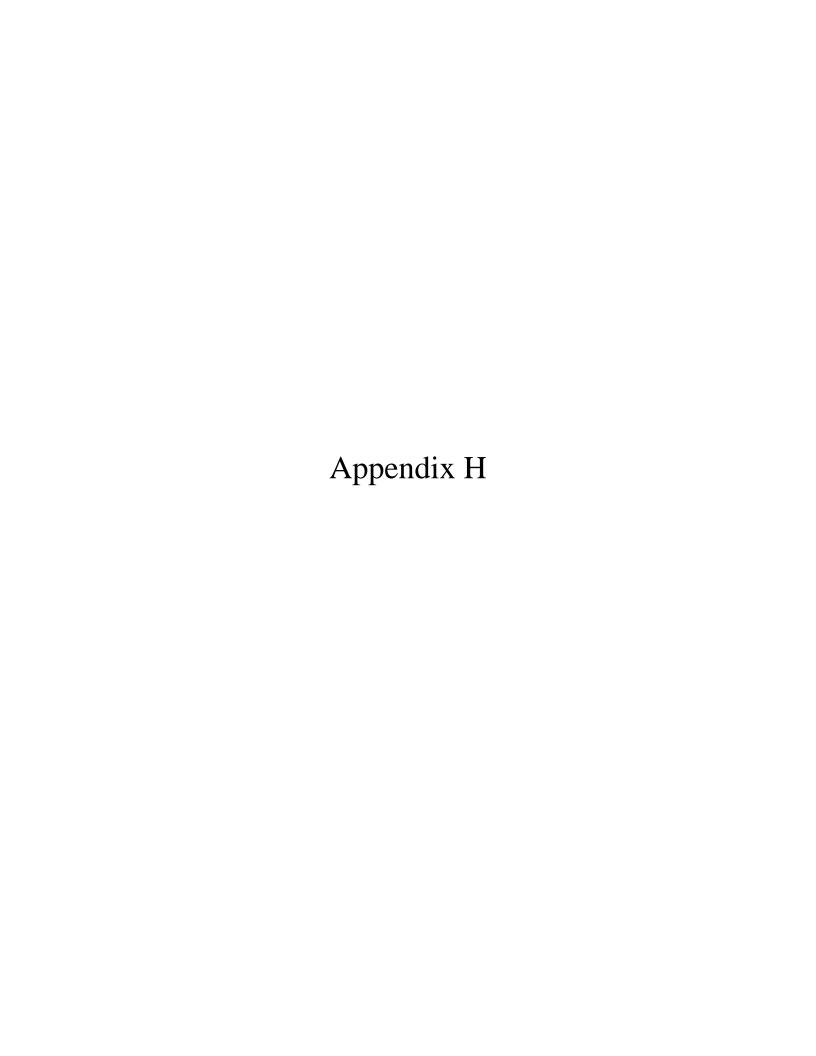
- General: New Health Care building opened at Interurban campus in September 2019.
- Budgets/Facilities: Budget details not released to Program Leader. Spend until someone says stop!
- Students/Enrollment: Full Foundation class for 2019 with waitlist. Apprentice level 2 class full
  with waitlist (Sept 2019), Level 3 class full with waitlist (Nov 2019), Level 1 class with 10 students
  (Jan-Mar 2020)
- Staffing: 1 full time instructor, 1 part time instructor (70% workload), 1 full time toolroom attendant
- Instruction/Open Education Resources: Shifting textbooks required to more CDX for both Foundation and apprentice classes. Still using a variety of other textbooks at each level.

- Curriculum Developments: Nothing until March 16, 2020. Loading D2L for shift to partial online learning.
- Transfer Credit Applications or Alterations
- Issues: Finding, training and retaining part time instructor(s); apprentice enrollment strong
  enough to create waitlist but not enough to add extra classes; shrinking pool of candidates for
  Foundation program; storage of large training apparatus limiting active shop space.
- Research/Projects: Proposed industry use of college equipment for modified marine engine emission systems.

## 3. Other Items of Interest

- Capital purchase of 2006 Caterpillar 320 excavator. Lockdown happened just before we could begin to incorporate it into the Foundation program.
- Loading of training material onto D2L for modified teaching delivery for Fall session of 2020.
   Many details to be figured out yet.







# **INSTITUTIONAL REPORT**

#### **BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)**

Meeting Date(s): TBA	
Institution/Campus Locatio	n: TBA - Online (Covid-19)
Name: Jason Sutton	email: <u>Jason.Sutton@viu.ca</u>

### 1. Institutional Update

#### General:

We are like all of you dealing with the rapid transformation of our programs delivery from face-to-face to an alternate/online delivery platform. We have been able to avoid shortening or cancelling any of our HMT programs (both foundation & Apprenticeship) other than the work experience piece that we unfortunately had to modify to more of a research assignment, than an actual hands-on experience. To date we have been able to continue on with an alternate delivery of our foundation programs that is follow curriculum requirements from an academic and discussion perspective, but have decide to forgo the practical shop component until such time as it can be delivered safely and incompliance with provincial governance. Definitely not ideal but we are finding that we can delivery enough content to at least create a level of exposure for the learner to build upon when they get into industry. Our apprenticeship programs that where finishing up at the time of all this, did so with some minimal reductions to the practical piece. Those that have started since, are delivering the theory component upfront and online and will return to the shop latter in there programing for the practical piece.

#### Budgets/Facilities:

Our budget is unchanged and like most, leaves us very little to play with or to improve upon our programs.

Our new facility was completed last summer and we've been enjoying our new space dedicated apprenticeship training. We have created somewhat of hybrid approach in the new space incorporating a lab like feel in to the shops environment. Our apprentice students are loving it and have commented on how well it transitions the classroom into the shop.

### • <u>Students/Enrollment:</u>

Currently we have full classes numbers (18 students per intake) accepted for our September foundation intakes, and our apprenticeship numbers are still looking strong.

#### Staffing:

All good at the moment but I'm anticipating some very real challenges as we move forward, and I think when I speak of these challenges, I'm undoubtable speaking for the majority of us. In the past we as trades people were prone to work through a cold or the flu rather than call in sick, and as we all know moving forward that practice is no longer welcome in the new work place and that is where the problem I see lies.

It was nearly impossible to get relief instructor before all of this, and that was mostly for events that were planning with lots of lead time. Finding short notice sick relief! I just can't imagine how you prepare a new, untrained instructor to work in this new alternate environment without ever spending anytime in the normal classroom.

As for our how our relief this past year has looked, that was scheduled well in advance, and through one of our retired instructor. I not sure that given the health risks that we know of today, our retired members are going to want to engage until such times as a vaccination is available.

### • Instruction/Open Education Resources:

#### Foundation & 1<sup>st</sup> Level

- A-Line books pf Occupation
- Fundamentals of Mobile Heavy Equipment CDX
- Fundamentals of Medium/ Heavy Duty Commercial Vehicle systems— CDX
- Fundamentals of Medium/ Heavy Duty Diesel Engines CDX

### 2<sup>nd</sup> level HD

- Fundamentals of Medium/ Heavy Duty Diesel Engines CDX
- Diesel Technologies 8<sup>th</sup> edition
  - Goodheart- Willcox Andrew Norman
- Med/Heavy duty Truck Engines, Fuel & Computerized Management Systems 6<sup>th</sup> edition
   Cengage Sean Bennett

#### 3rd level HD

- Modern Diesel Technologies Heavy Equipment Systems 3<sup>rd</sup> edition
  - Cengage Robert Huzij, Angelo Spano & Sean Bennett
- Heavy Duty Truck Systems 7<sup>th</sup>edition

Cengage Sean Bennett

#### 4th level HD

- Hydraulic Systems for Mobile Equipment
  - Goodheart- Willcox Timothy W. Dell
- Modern Diesel Technologies Heavy Equipment Systems 3<sup>rd</sup> edition
  - Cengage Robert Huzij, Angelo Spano & Sean Bennett

#### 4th Level CT

Hydraulic Systems for Mobile Equipment

Goodheart- Willcox

Timothy W. Dell

Heavy Duty Truck Systems 7<sup>th</sup>edition

Cengage

Sean Bennett

#### 2. Program/Course Update

#### Curriculum Developments:

Currently curriculum development is happen off of the side of our desks, it has been an extremely stressful and damaging couple of months. That said, we don't normal receive much in the way of release time to develop curriculum. Just feeling it more than usual given the current situation.

### • <u>Transfer Credit Applications or Alterations:</u>

None to speak of.

#### Issues:

We are still seeing far too many apprenticeship students returning for additional training long before achieving the necessary hours recommended by industry to prepare them for a successful session. In my mind we definitely need to implement a minimum number of hours between apprenticeship train sessions.

I know it's a long shot, but it would also be nice if this was accompanied by some form of employer, actual industry training accountability system. Probably not going to happen, but worth a conversation?

Keeping current with industry, as I previously mentioned with limited funds for new equipment, props, aids and industry training for our instructor, we will be out dated in only a few years. This is something our group discusses regularly and we are all less than three years out of industry

#### Research/Projects:

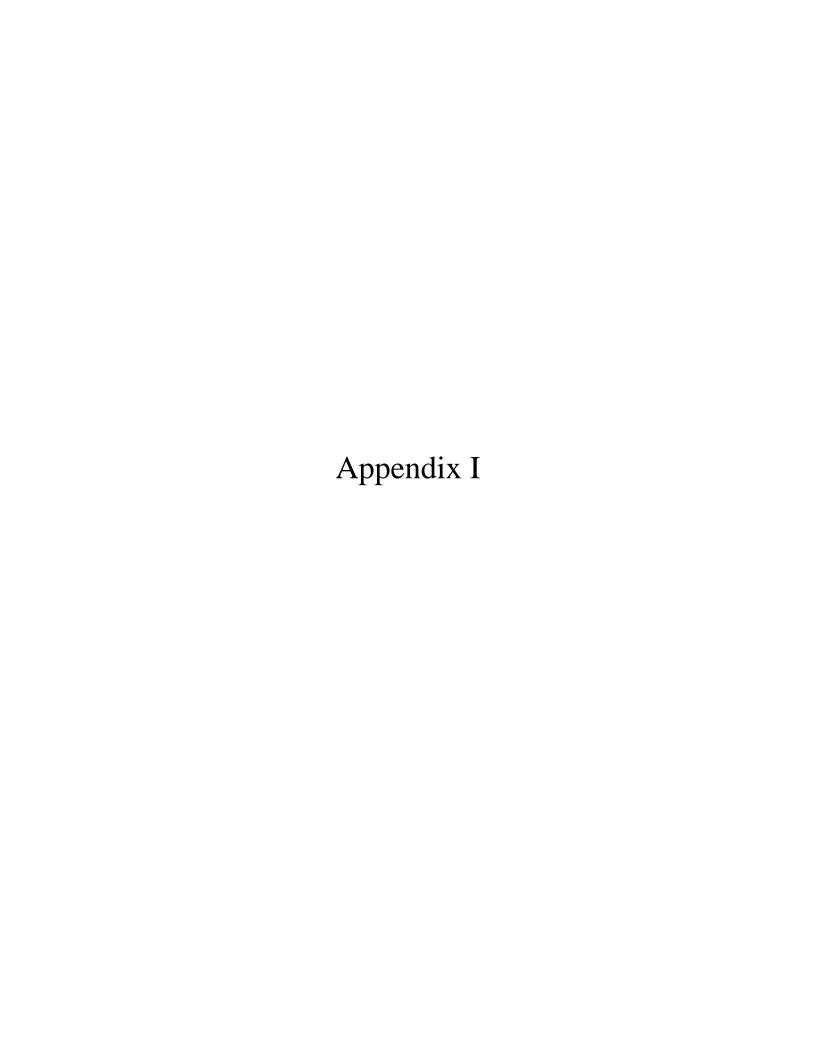
None to speak of.

#### 3. Other Items of Interest

I have gone into detail on how we have finished off this years delivery in my earlier comments. I will add to that, we have also been relying heavily on our D2L sites. We have rapidly been modifying them to accommodate and properly assess a program that is very different form what they were intended to support. It's a learning curve but we are getting there.

As for next year we are currently planning on delivering our programs theory very similar, from an alternate/online platform and the looking it ways of better incorporating the practical piece into our programs.

I look form ward to working with the articulation group over the coming months as we navigate our trade through some very unforgiving waters.



## **INSTITUTIONAL REPORT**

#### **BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)**

June 16, 17, 2020

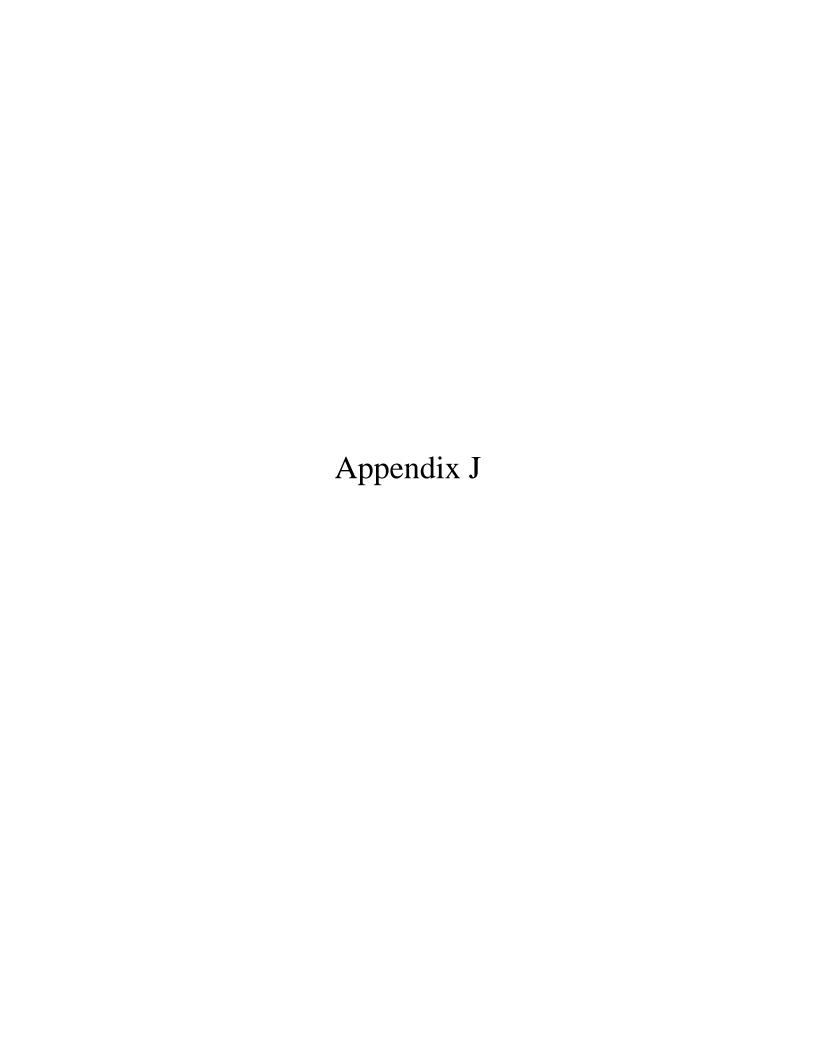
Coast Mountain College Terrace

Name: Mike Kerbrat Email: mkerbrat@coastmountaincollege.ca

### 1. Institutional Update

- General: Coast Mountain College is going through several changes, the Trades Building reconstruction is complete now. Construction of the new library is just starting and should be completed for September. In the near future there are plans for construction of new much needed dorms.
- Budgets/Facilities: Budget is \$10,000.00
- Students/Enrollment: Started with 14 and ended with 8, six dropped out for various reasons
- Staffing: Myself
- Instruction/Open Education Resources: B.C. Books and Alberta modules

- Curriculum Developments: On going
- Transfer Credit Applications or Alterations : none
- Issues : Just dealing with the Covid situation.
- Research/Projects: Mentioned above.
- 3. Other Items of Interest. We ran a second year program this spring. Other than having it finished on line it was successful. There were 18 students involved. The shop is quite a mess because the second year engines were not completed and are still laid out on the floor. This is a problem for the new class starting in September, they may need to assemble these engines and move them out of the shop. If we are still dealing with covid in September it will be challenging.



### **INSTITUTIONAL REPORT**

**BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)** 

June 16 & 17, 2020		
Virtual Meetings		
Bruce Thompson	BCIT	

### 1. Institutional Update

- Everything was status quo until the Coronavirus shut everything down. Offering 18-19 apprentice intakes and 6 Foundation intakes per year.
- March 16 2020 we started to shift everything to online learning using virtual classrooms. By March 18-19 we had everything operating in virtual classrooms and managed to keep programs going. Finished all apprentice and foundation classes online. On June 2 we started Level 2,3 4TTM and 4HDET with theory online and having small groups (4 students at a time) of students come onto campus to perform critical practical's. All our safety protocols are in place and we have been approved to bring students onto campus. Postponed foundation programs until September to start.
- Budget was the same as last year with the exception of non-salary budget, which was taken away. Since Covid-19 we have had some of our budget taken back by the institution and expect more of this as we move forward.
- Classes are continually full. Apprentice classes are mostly full for well into 2021. Foundation classes have a 24 month waitlist.
- 11 Full time instructors with 2 Chief Instructors possibly some retirements in the near future, waiting to hear.
- Apprentice classes are mostly using the CDX materials and Foundation classes are using the trades training modules.

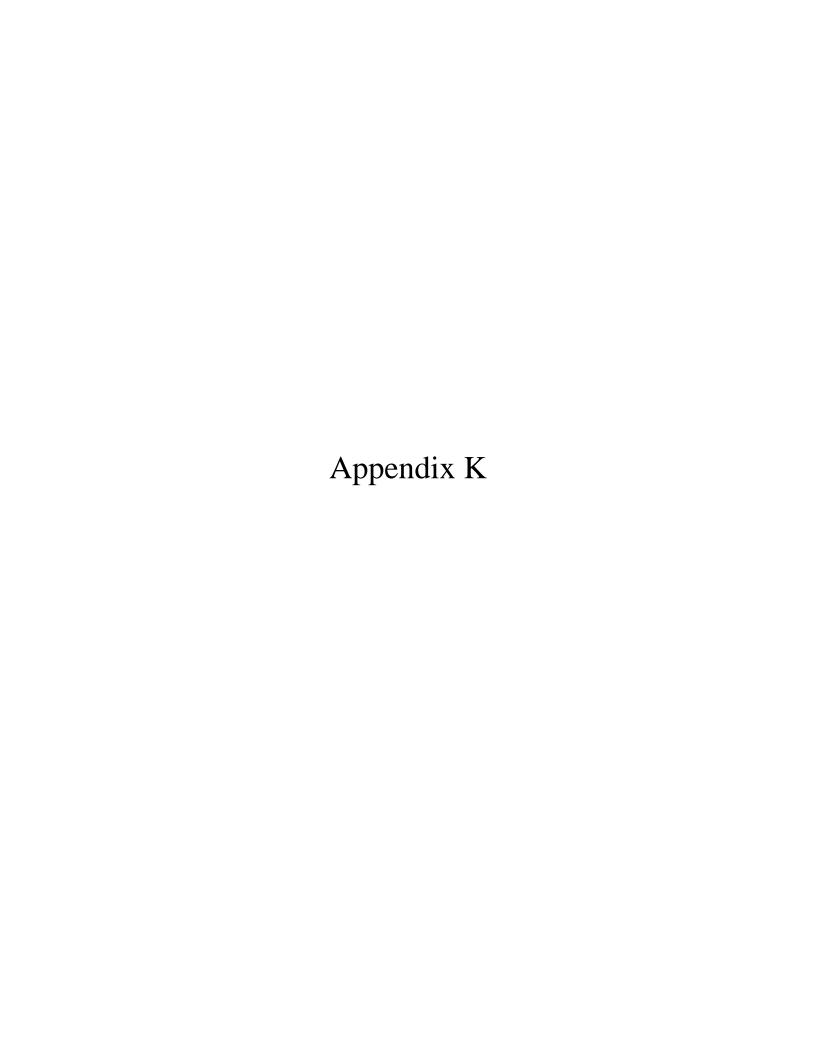
- Curriculum Developments Looking to make some minor shifts to our Foundation program, combining all heavy duty material into one course.
  - Built an online version of Level 1 for ITA. Ran it with 6 students was very successful. When covid hit we took our upcoming level 1 and turned it into the online version.
- Starting a 2 year Heavy Duty Truck Diploma program in January 2021. Will cover foundation and the first 3 levels of apprenticeship, this will also include some manufacture specific training also. Starting with a domestic intake then we will add an international intake.

- Transfer Credit Applications or Alterations N/A
- Issues Just dealing with the coronavirus issue like everyone else.
- Research/Projects Working on developing electric vehicle training for trucks.

## 3. Other Items of Interest

a.





# **INSTITUTIONAL REPORT**

#### **BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)**

June 16-17 2020

**North Island College Campbell River** 

Name: Byron Beaupre email:Byron.beaupre@nic.bc.ca

### 1. Institutional Update

- General
- Budgets/Facilities
- Students/Enrollment
- Staffing
- Instruction/Open Education Resources

### 2. Program/Course Update

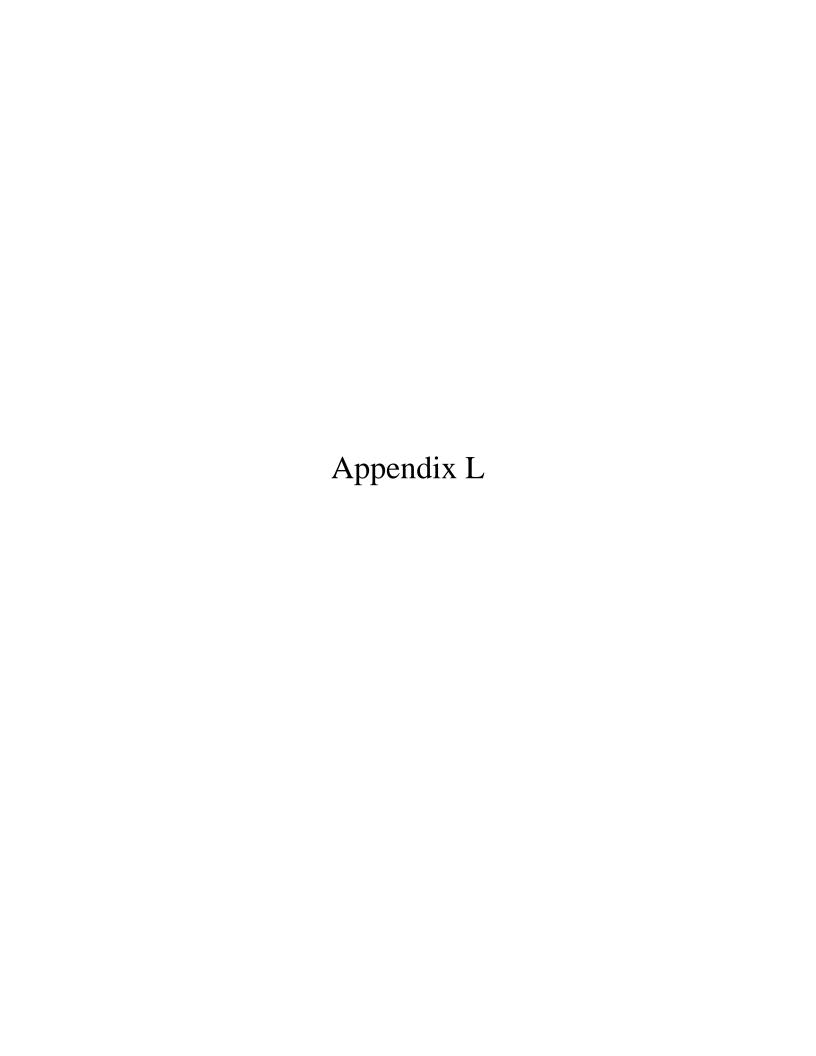
- Curriculum Developments
- Transfer Credit Applications or Alterations
- Issues
- Research/Projects

#### 3. Other Items of Interest

How NIC is planning on dealing with Covid 19 in the Heavy Mechanical Trade at North Island College:

- NIC we are planning on having full 16 students in a large class that can accommodate all students with the required distance between students.
- The classroom will be professionaly cleaned twice a day.
- Students will have their safe area in shop designated as there go to area for start of day and storage of items, since the locker rooms will be closed, washrooms are gender neutral stalls.
   NIC also has multiple single bathrooms that lock.
- The hall ways are all marked to stay to the right while passing opposing traffic. Around the tool crib is safety shielding for the tool crib personal.

- The shop area is only occupied by one class so we can have two students per project wearing face shields and gloves as well as all required PPE
- Having small groups means more shop projects ex. 8-groups of 2 = 8 projects, in the past we
  had 4-groups of 4-students = 4 projects
- Each group of two will have their own set of tools.
- The hallway around the welding shop is designated as a one-way flow of traffic to and from the cafeteria and washrooms.
- Shop projects will be in groups of two
- Projects are wipped down before starting and at end of every day
- The cafeteria is open for orders and take outs, no self-serve or sitting in cafeteria



# **Heavy Mechanical Trades ARTICULATION COMMITTEE**

## **INSTITUTIONAL REPORT**

**BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)** 

June 16-17 June 2020	
The College of New Caledonia/ Prince George	
<b>Grant Eveneshen</b>	evenesheng1@cnc.bc.ca
Randy Kempster	kempsterr1@cnc.bc.ca

### 1. Institutional Update

- We are learning to utilize our new shop on the CNC campus, despite the limitations imposed by the COVID 19 crisis. We Keep most of the large equipment inside for easy access, and have specific areas for different apprenticeship levels.
- Budgets/Facilities- With the outlook for the economy and workforce completely up in the air all we can do is to plan as if business is normal. We'll let you know tomorrow how things will run that day. We have had our safety committee tour our facility and recommend layout changes to do with the number of students at any given time, and cleaning protocols with respect to equipment, tools and the facility. Our floor is layed out with directional markings and safe distance measurements. Signs tell everyone which way to go and what to do when you get there. We expect somewhat smaller class sizes in the fall which will make it easier to handle in these conditions.
- September will begin with 64 students, growing to 80 by November. Struggling with sharing the shop with appropriate distancing but the faculty in our building work very well together. If we need a time or place to present a subject we just organize it with our fellow instructors. We run 16 CTC students per year, and usually 32 Foundations students. Apprenticeship classes run year around as required by the historically full wait lists, (subject to change).
- Staffing: We currently have six instructors and a tool room attendant. Up until now we have always been on the lookout for qualified personnel to help out, but that's probably going to be less important this year.
- All of our classes run in the Moodle platform and all instructors are comfortable navigating in this
  format. Due to the pandemic we have recently converted our theory delivery to online training
  using The Big Blue Button, which is similar to Blue jeans or Zoom. In shop training is done by
  scheduling full days with one class in the shop at a time as required.

### 2. Program/Course Update

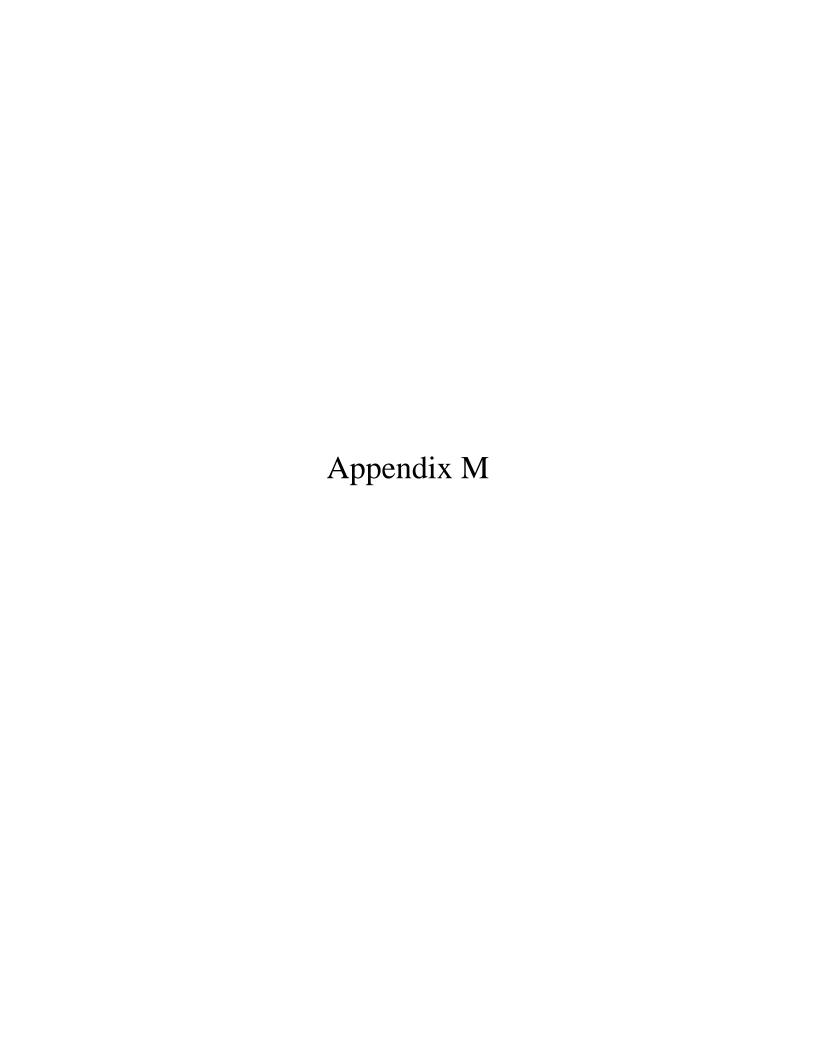
Curriculum Developments: Obviously massaging our course material to be effective in the online
world has been a huge hill to climb. All of our staff is involved in developing new ways to deliver
and assess curriculum while attempting to make it as engaging as possible.

- Issues: As I mentioned effective delivery to typically hands-on learners has been a struggle. We find
  many students embrace this format but several have motivation and concentration issues. Another
  problem is technology problems that allow students an excuse to keeping up with assignments.
   Wifi problems are much harder to deal with than the old "my dog ate my homework line". The last
  issue worth mentioning is distance and safety management in a shop environment, it is very
  difficult to keep students (particularly younger ones) clean and safe.
- Research/Projects: one of our instructors 'Dave' has been working with research and development to modify a diesel engine to operate on processed wood smoke as it's fuel. It's similar to a natural gas type system and is an exciting project.

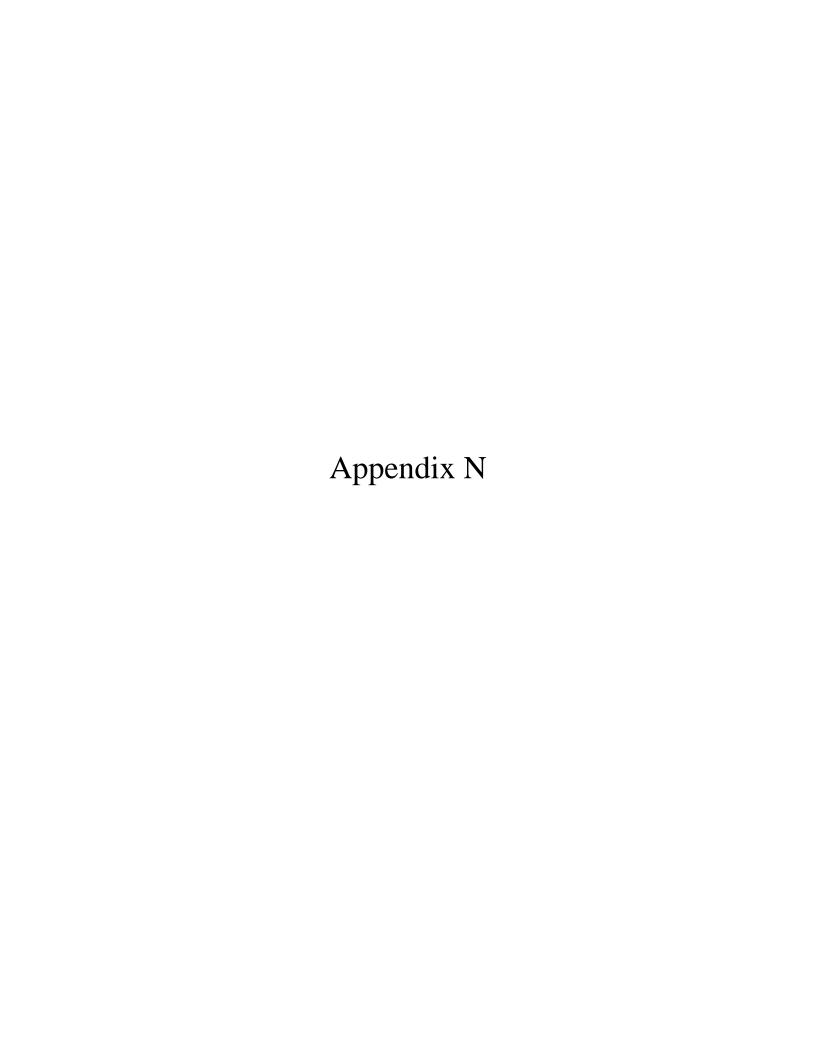
#### 3. Other Items of Interest

 Our Coordinator Craig Hull has been busy developing several courses to promote and grow our department. The courses include an Indigenous Program, a foreign student program and a basic shop and yard starter program.





Institution Coverna I castion
NSERT Name: email:
INSERT NAME OF ARTICULATION COMMITTEE
INSTITUTIONAL REPORT BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)
INSERT Meeting Date(s): June 16 2020  Day/Month/Year
Co4R.
Spencer Mellor
Mellor a CotR. BC. CA.
1. Institutional Update
• General - Covid - SHUT DOWN MARCH 15 2020 • General - Still IN Closure: ONLINE APP-STARTED JUNE 1 2020 • Budgets/Facilities = 10
Budgets/I definites - NA
• Students/Enrollment _ AdditIONAL APP. Streams
· Staffing - 3 Instructors _ 2 Apprentice 1 Foundation
• Instruction/Open Education Resources  Foundation_Cix - App. modele_ Cix
2. Program/Course Update
• Curriculum Developments NA
• Transfer Credit Applications or Alterations
• Issues NONC
• Research/Projects None
MAD Process ON Hold-Students Laid OFF:



#### **HMT Articulation Group**

# **INSTITUTIONAL REPORT**

### **BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)**

Meeting Date(s): 11/June/2020

Institution/Campus Location:Northern Lights College

Name: Doug Haycock email: dhaycock@nlc.bc.ca

### 1. Institutional Update

General

Everyone is now enjoying their space in new Trades building in Dawson Creek after the delays in the new building construction

- Budgets/Facilities
  - Status Quo
- Students/Enrollment

Fluctuating.....previously high enrollment trades courses are now seeing downturns. HMT is experiencing high/full enrollments right now.

- Staffing
  - Stable, no new people hired
- Instruction/Open Education Resources

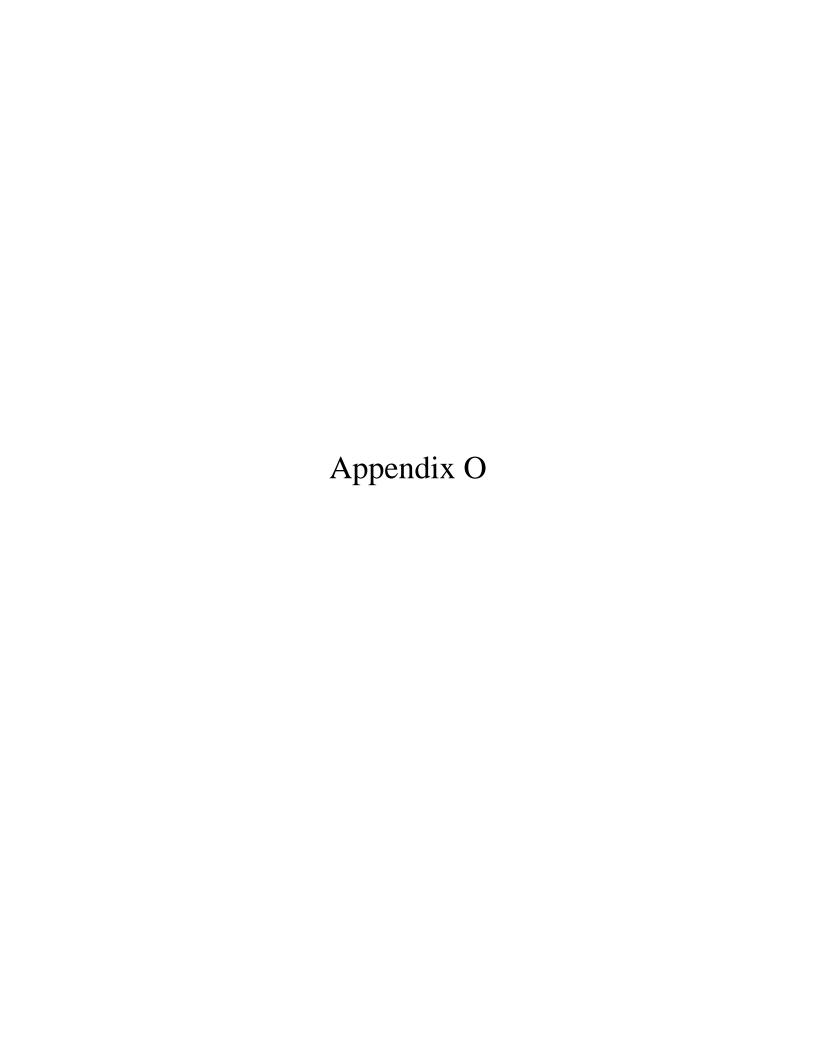
### 2. Program/Course Update

- Curriculum Developments
   Every trade in NLC is now going to online delivery with scheduled shop/lab/kitchen days.
   HMT programs have dropped the Alta. Modules and are using the green B.C. Modules and CDX material.
- Transfer Credit Applications or Alterations
- Issues

We have never delivered online to this extent before, so who knows what will happen!! How is social distancing going to work in the shops?!!

Research/Projects

#### 3. Other Items of Interest



## **INSTITUTIONAL REPORT**

#### **BRITISH COLUMBIA COUNCIL on ADMISSIONS AND TRANSFERS (BCCAT)**

25/05/2020	
Vancouver Commu	nity College
Rick Cyr	email: rcyr@vcc.ca

### 1. Institutional Update

- VCC has maintained a full course schedule through distance learning formats during the covid shutdown. The international program had a successful first year is continuing online as well.
- Prior to the shutdown we were fully utilizing our facility space and training aids.
- We still have a waitlist for foundation classes and full classes for apprenticeship. A couple student s have delayed apprenticeship training hoping for a return to normal but it is not uncommon for students to postpone a level training for other reasons.
- Currently fully staffed with 11 instructors
- See attached VCC HMT document for explanation of current online delivery.

### 2. Program/Course Update

- Continuing development of the international program. Added a part time instructor for workplace communications mainly for the international cohort.
- Transfer Credit Applications or Alterations
- Both students and instructors are suffering from screen fatigue. Always searching and trying new activities and assignments to maintain engagement and learning.
- Research/Projects

#### 3. Other Items of Interest

## VCC Heavy Mechanical Trades Courses and Programs: Update on training during Covid-19

VCC Heavy Mechanical Trades Department is continuing to deliver training as per our normal training plan. All VCC HMT Programs and/or Courses are on schedule and all Foundation, and Apprenticeship start/end dates are being adhered to.

Delivery of instruction has fully transitioned to distance learning formats, which include; Instructor led interactive presentations, assignments given and received via email, group discussions facilitated via zoom etc. Students are completing programs/ courses as they normally would although without face-to-face instruction. Students will be given the opportunity to come back voluntarily to complete the gap training they feel they missed once face-to-face instruction resumes.

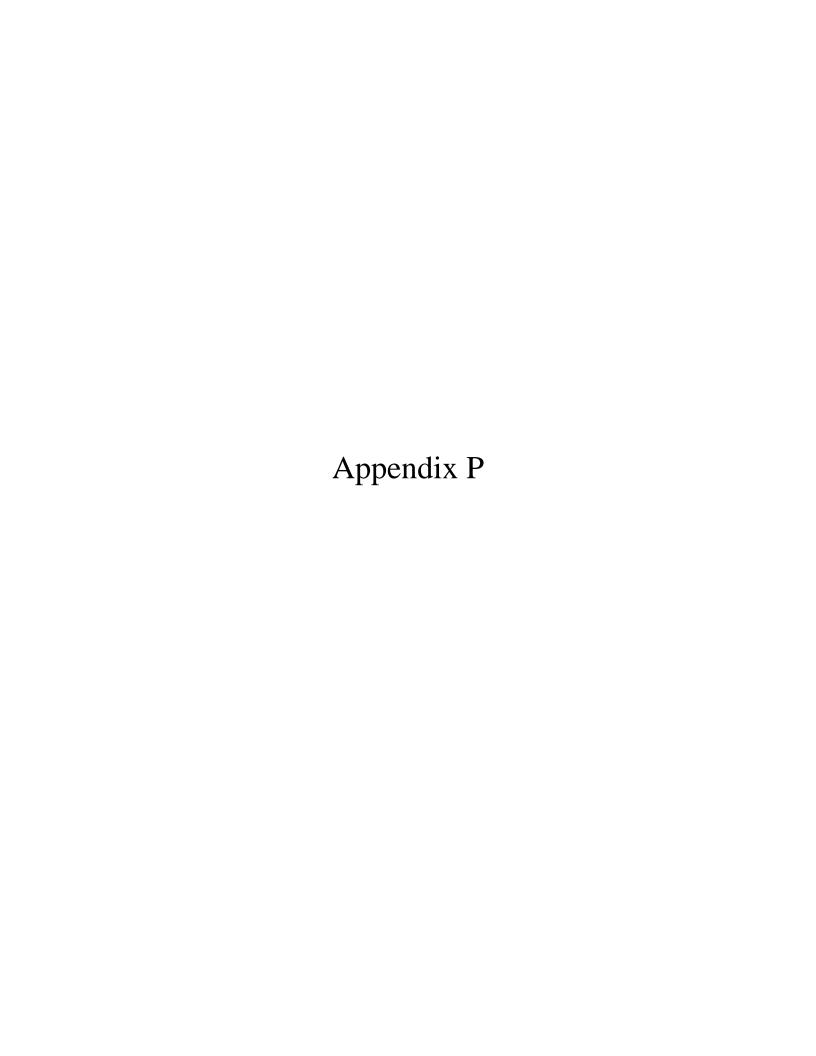
The goal of VCC HMT during this pandemic is to keep students progressing through their education (without interruption) while ensuring they have the opportunity (at a later date) to make up anything they feel they have missed.

The Industry Training Authority has provided VCC - HMT with guidelines on how students can successfully complete without face-to face instruction in order to keep these students and apprentices progressing through their levels. Level exams have been suspended and students will complete their levels solely based on their school mark.

The Interprovincial exams are still occurring at the end of the level 4 training and are being administered by ITA invigilators using social distancing at the Annacis Island Campus.

Email questions/comments to hmt@vcc.ca





From: <u>Jamie Ubell</u>
To: <u>Alana Dallaire</u>

Subject: FW: Safe to use in vehicles - COVID19 Disinfectant - Grassroots#2 Disinfectant Information Package

**Date:** June-17-20 8:52:49 AM

Attachments: image001.png

**From:** Bruce Thompson [mailto:Bruce\_Thompson@bcit.ca]

**Sent:** Wednesday, June 17, 2020 8:52 AM **To:** Jamie Ubell <Jamie.Ubell@ufv.ca>

Subject: FW: Safe to use in vehicles - COVID19 Disinfectant - Grassroots#2 Disinfectant Information

Package

#### Hi Jamie

#### Here is the information for the Grassroots product.

From: Victor Bresolin <<u>vbresolin@telus.net</u>>
Sent: Monday, April 27, 2020 1:38 PM
To: Aly Vellani; Jeff Habich (Napa 359)

**Subject:** Safe to use in vehicles - COVID19 Disinfectant - Grassroots#2 Disinfectant Information

Package

**CAUTION:** This email originated from outside of BCIT. Do not click links or open attachments unless you recognize the sender and know the content is safe.

#### Good Day Everyone,

As many of you are beginning to realize, supply chains for PPE products are currently overwhelmed. Manufacturers around the world are working hard to fulfill demand. We've established that this demand is unlikely to diminish in the near future. Everyone's expectations regarding sanitation and cleanliness have changed/is changing. Businesses have made adaptations in their day to day operations to meet these expectations and I doubt that one day we'll suddenly revert back to "the way it was before." We're all learning what the new normal is becoming and how to adapt in order to keep moving forward.

#### **PRODUCT SUMMARY:**

Grassroots#2 is manufactured here locally in BC by BBSpro. They're an established manufacturer which primary supplies the food & beverage service industry. Grassroots#2 is sold in concentrated form and you must mix with water prior to using it. Dilution instructions are attached; REFER TO THE DILUTION RATIO FOR "DISINFECTANT" IN ORDER FOR IT TO BE EFFECTIVE AT KILLING THE COVID19 AND SIMILAR CORONAVIRUSES.

Grassroots#2 is approved by Health Canada as effective against COVID19.

Properly diluted product is safe for common automotive interior surfaces and hard surfaces found in your shops and homes. \*Please be cautious with navigation touch screens, infotainment display screens computer monitors and similar; some of these have an anti-reflective coating that's sensitive to even the mildest cleaners. Use your own discretion when it comes to these\*

PLEASE TAKE TIME TO CAREFULLY REVIEW THE ATTACHED INSTRUCTIONS. Basically the recommended way to apply is simply mist it on the surfaces and let dry. If you have any questions, feel free to reach out to me.

#### **ORDERING PROCEDURE:**

For those that have already placed your orders, we've already processed them and we have already begun delivering them.

For those of you that wish to place an order, simply reply to this email, call or text me directly. If you want use a PO# for the order, kindly remember to include that.

The goal is to accommodate everyone, **please limit your order to 2 jugs max.** This way we can ensure we have a steady supply for everyone.

This product is NON-RETURNABLE.

#### PACKAGING AND PRICING:

You are purchasing a concentrated product; you must mix with water before using. Available only in 4 liter Jugs.

Your cost is \$45.00 per jug.

1 jug makes approximately 58 liters of ready to use Disinfectant. (Cost per liter of \$0.78)

I have attached the following:

MSDS Sheet

**Product Information and Instructions** 

Health Canada Approval for use against COVID19

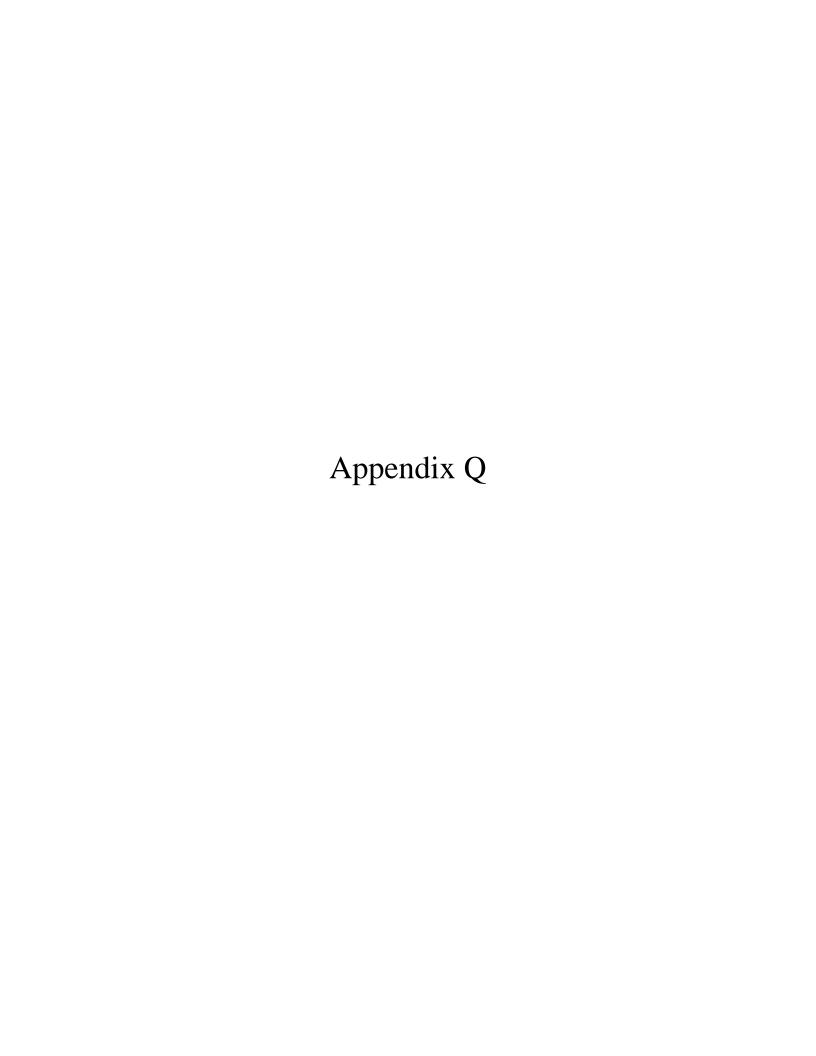
#### **SPRAY BOTTLES:**

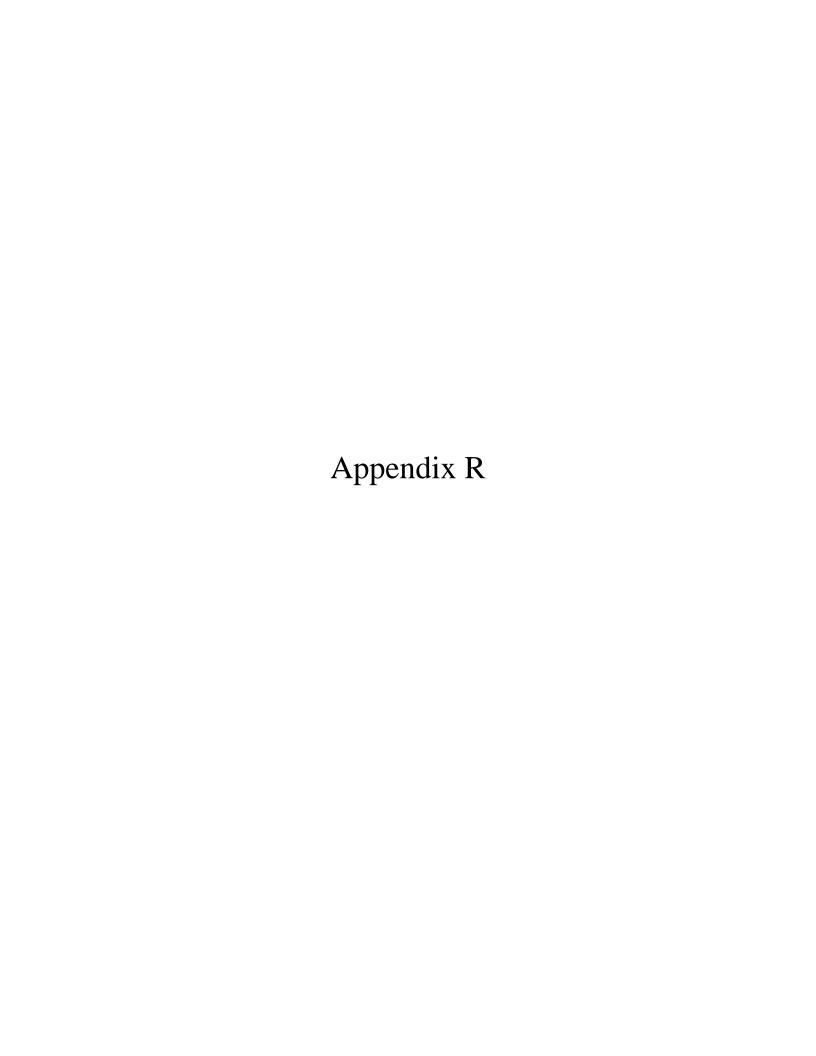
Use any clean trigger style spray bottle you already have. Set it to create a fine mist it this works best and gives you even coverage.

We will have spray bottles available approx. the week of May 4<sup>th</sup> at a cost of \$5.00 each. Again, quantities will be limited.

Regards, Victor C. Bresolin Napa Auto Parts GVA (604) 833-2442 vbresolin@napacanada.com







## Cojali USA

Cristian Palomanes cristian.palomanes@cojaliusa.com

Isidro Flores

Isidro.flores@cojaliusa.com





www.cojali.com

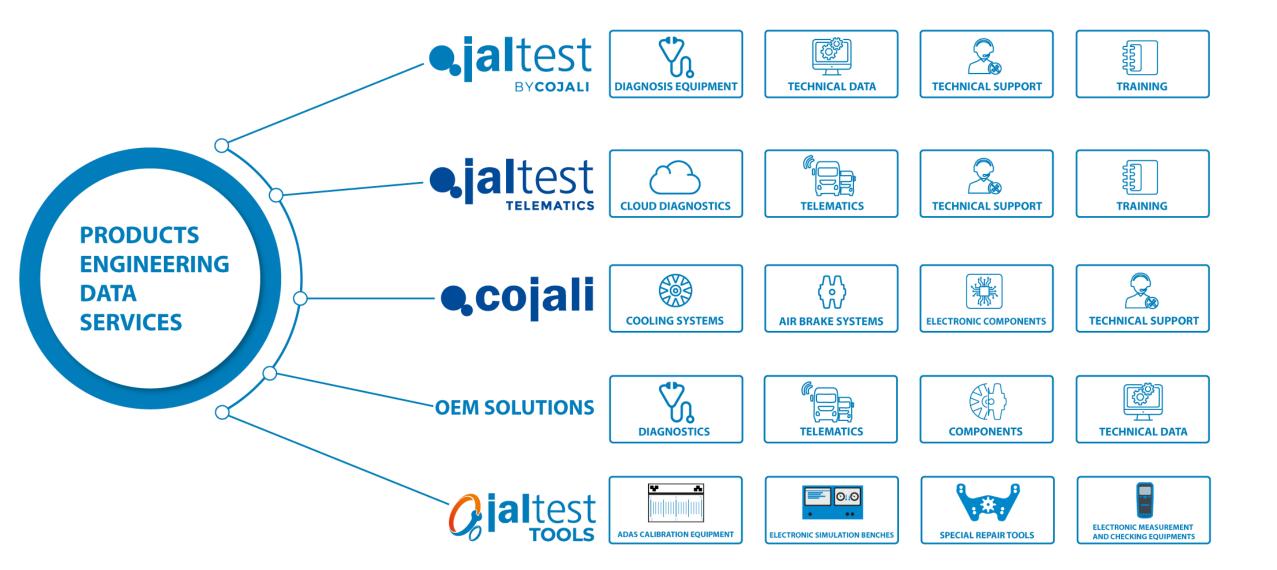
## Welcome to COJALI



Innovation & Technology

### **General Overview**





### Turnover, Investment and Growth





**70**%

**GROWTH** 

**IN 4 YEARS** 



92m

**GROUP** 

**TURNOVER** 



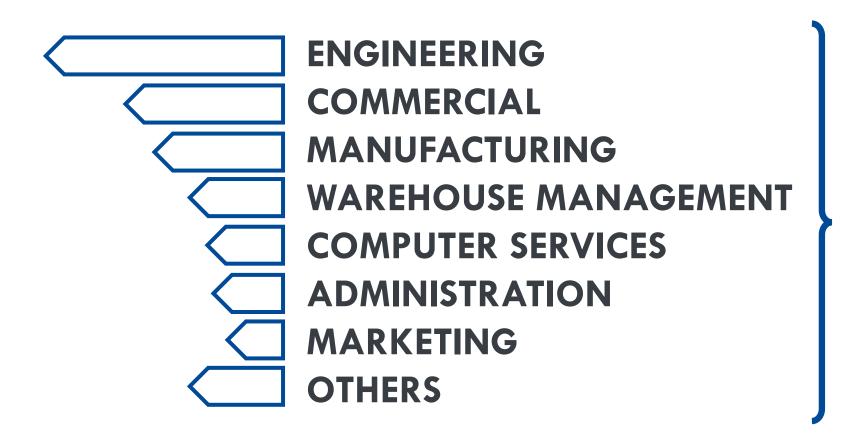
4%

R+D+i

**INVESTMENT** 

### Number of Employees per Department





+630 employees

### **Company Timeline**





1991

**SPAIN** 

**COJALI S.L.** 



1994

**FRANCE** 

DEFI DIFFUSION S.L.



2004

**ITALY** 

COJALI

ITALIA



2010

USA

COJALI

USA Inc.



2016

**RUSSIA** 

**SALES** 

**OFFICE** 



2016

**TURKEY** 

**SALES** 

**OFFICE** 



2019

**MEXICO** 

**SALES** 

**OFFICE** 



2019

**GERMANY** 

**SALES** 

**OFFICE** 

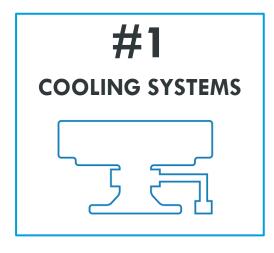
### Network



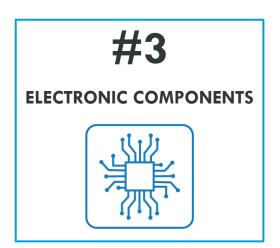


### **Business Divisions**

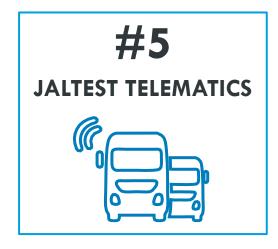




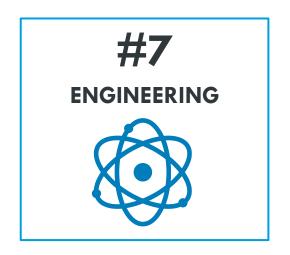














# #4 JALTEST DIAGNOSTICS

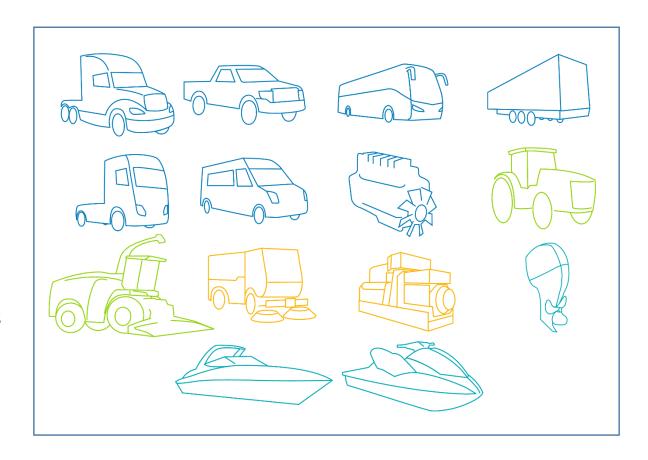
### Jaltest Coverage

All-makes & All-systems Diagnostics

Just one License

More than simple diagnosis
Bidirectional controls, calibrations...

Intuitive: Our objective is to help technicians and shops to save money and time





ALL MAKES, ALL MODELS, AND ALL SYSTEMS DIAGNOSTICS

#### **Commercial Vehicles**

















#### Off-Highway Vehicles



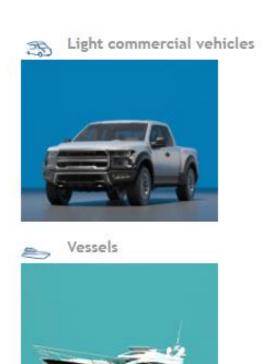












#### **Agricultural Vehicles**

















#### Marine Vessels

















### **Jaltest**



Jaltest offers a global solution for the repair shops

### **Jaltest**

**HARDWARE** 





COMPUTER / TABLET\*









\*Not included in the Initial kit.

### Diagnosis. Hardware



#### **INCLUDES**

- ✓ Transport hardcase.
- ✓ Jaltest Link VCI (interface).
- ✓ Multipin set.
- ✓ OBD Diagnosis cable.
- ✓ USB cable.
- ✓ Deutsch 9 pin type 2 green diagnostics cable
- ✓ Deutsch 6 pin diagnostics cable

#### **OPTIONALS**

- ✓ Jaltest Rugged PC (Panasonic Toughbook).
- ✓ Specific Vehicles Cables

### Diagnosis. Hardware

#### Jaltest Cable Set:

- ✓ USB cable
- ✓ SAE 9-PIN cable
- ✓ OBD cable
- ✓ SAE 6-PIN adapter
- ✓ Multipin set



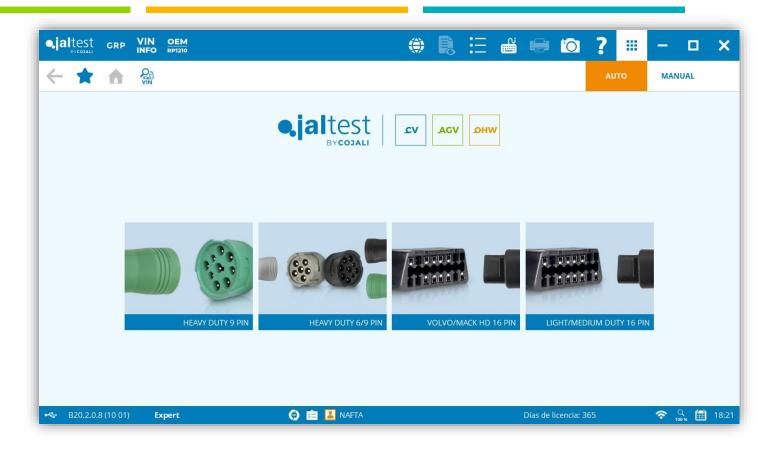
### Jaltest Equipment

#### √ Jaltest Software

Software platform that allows to perform live bidirectional controls with the vehicle using Jaltest Link

#### √ Jaltest Link

Allows performing diagnosis and communicating with the different electronic control units, being able to use different communication protocols (J1939, J1708...)



Jaltest Link can be connected to the PC via USB or Bluetooth.

### **Jaltest**

Jaltest Soft is a Windows-based diagnostic software.

#### Minimum requirements:

- ✓ Windows Vista, 7, 8 and 10.
- ✓ Intel processor recommended.
- √ 4 GB RAM memory.
- √ 10 GB available space on hard drive.
- ✓ USB communication port.
- ✓ Bluetooth device.

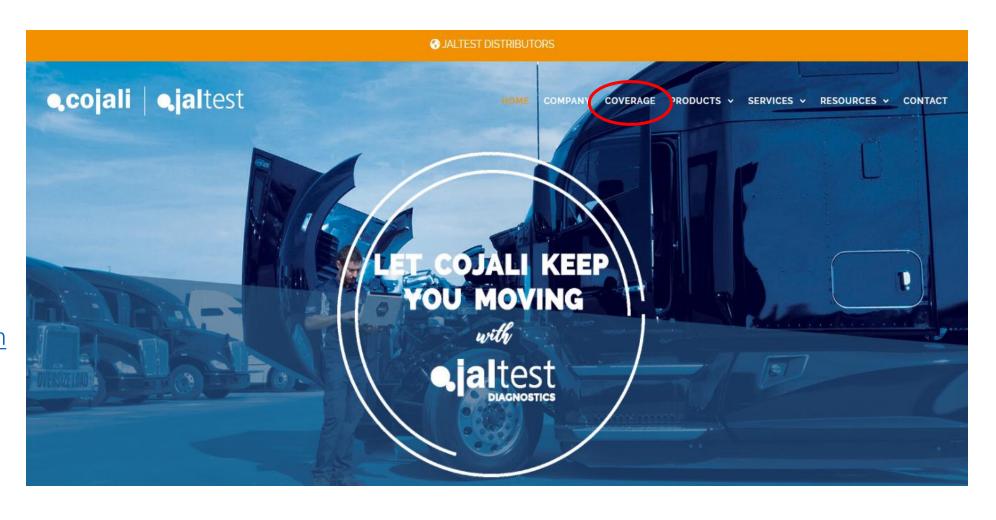




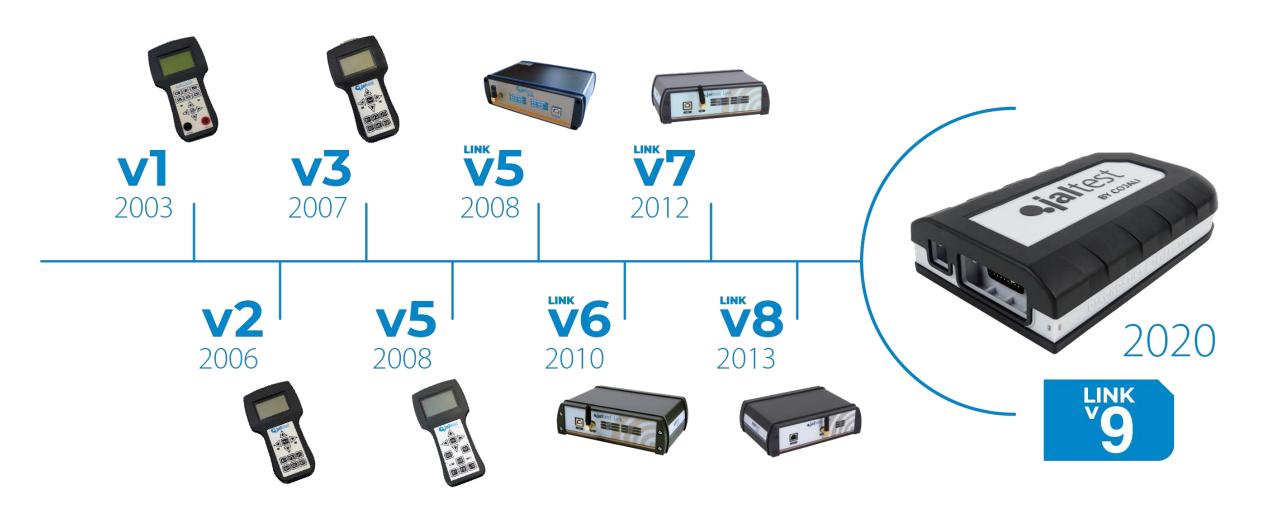
### Jaltest website

Jaltest Website > Coverage

www.cojaliusa.com



### **Evolution of Jaltest link**



### New Jaltest link

#### **HARDWARE**

Jaltest Link is the VCI (Vehicle Communication Interface)

All communication protocols supported:

- ✓ SAE J1708
- ✓ SAE J1939
- ✓ ISO 9141-2, K Line (Hino, Fuso, Sprinter...)
- ✓ SAE J1850 VPW (GM Chevrolet)
- ✓ SAE J1850 PWM (Ford)
- ✓ CAN High & Low-speed
- ✓ HSCAN, UDS and MSCAN

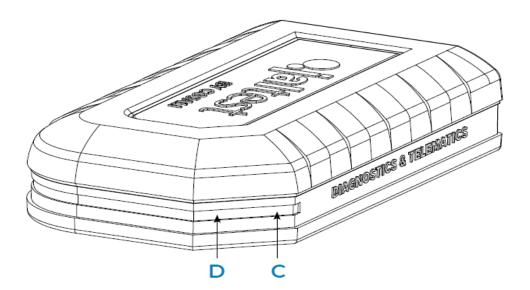
Jaltest Link is a RP1210 compliant device!



### New Jaltest link

#### **JALTEST LINK**

Jaltest Link → Vehicle



Jaltest Link 

→ PC

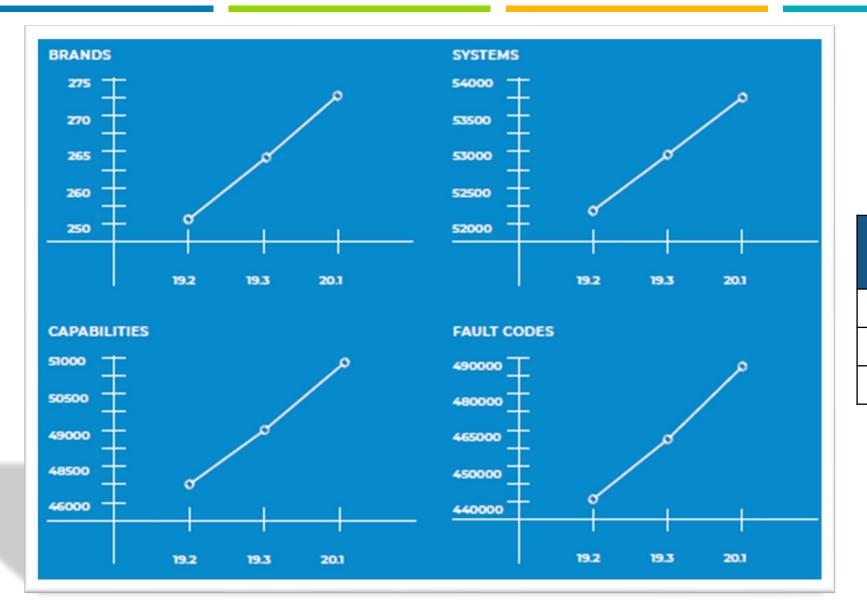
#### **Communication status**

	LED 1	LED 2
Standby (only USB connection)	Flashing light x1 s	OFF
Standby (external power)	ON	OFF
Work mode	ON	Flashing light x10 s
Hardware fault¹	Flashing light x1 s	Flashing light x1 s
Firmware load	Flashing light x10 s	Flashing light x10 s

C, LED 1 D, LED 2

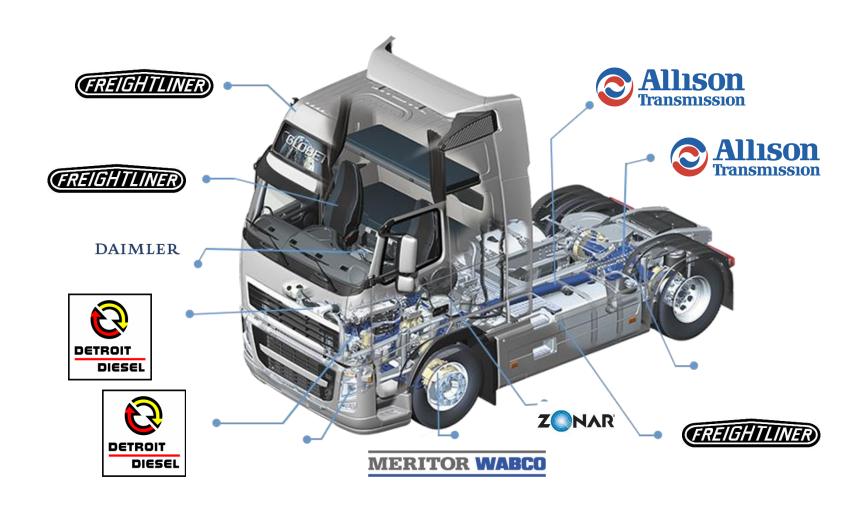
<sup>&</sup>lt;sup>1</sup> LEDs will blink alternately

### Jaltest Numbers. 3 Fixed Updates every year

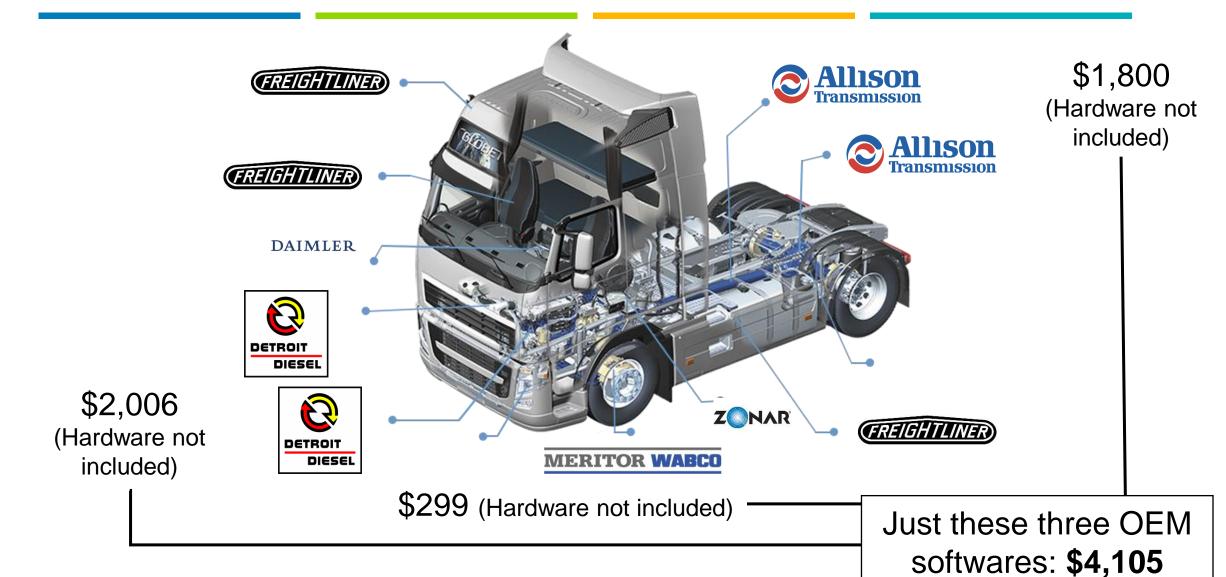


SOFTWARE UPDATES IN 2020		
FEBRUARY	20.1	
JUNE	20.2	
OCTOBER	20.3	

### Jaltest Coverage



### **Jaltest Coverage**



### **Cost Comparison**

OEM TOOL	OEM Price
CAT Comm III	\$1,299.00
Volvo & Mack VOCOM	\$3,863.00
Cummins INSITE	\$795.00
Detroit Diagnostic Link	\$2,006.25
Allison DOC	\$1,800.00
Paccar DAVIE	\$2,600.00
Meritor Wabco Toolbox	\$299.00
Navistar NED	\$599.00
International DLB	\$629.00
Eaton Service Ranger	\$2,675.00
Hino	\$2,675.00
Isuzu IDSS II	\$2,183.00
Mitsubishi Fuso	\$3,799.99
Ford	\$1,599.99 (hardware)
	\$849.00 (license)
	\$459.99 (hardware)
GM	\$775.00 (license)

#### For a complete All Makes, All Models, All Systems coverage:

#### **OE** Solution

- 15 Softwares / licenses
- 3+ hardwares

Total: \$26,231.23





#### **Jaltest Solution**

- 1 Software / license
- 1 hardware

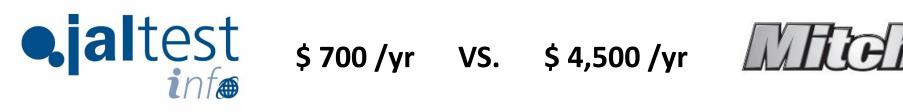
Total: \$7,325.00

### **Cost Comparison**

No need for expensive external databases when all is integrated in Jaltest Soft

With our Jaltest Info Online, every piece of information that the technical will need to repair a fault code can be found one click away

Not only will it save money, but time as well as there is no need to look around in complicated databases





**√** \$3,400 in Savings

### **OE Equivalents**

15 Licenses
15 Different Expiration dates
15 Different Ul's



1 License
1 Expiration date
1 UI



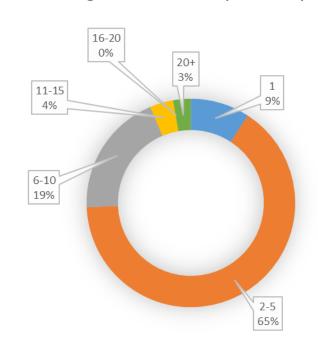
### **Market Situation: Commercial Vehicles**





- Mature market
  - Fragmented offering: over 20 solutions
  - Lower priced options are not satisfactory.
- Coverage 95%+ of OEM capacities, and closing.
- Estimated Code Coverage: 98%.
- Next steps:
  - Specialty Vehicles
  - Dealer level calibrations: ECM Reprogramming
  - Vehicle Interconnectivity

# of Diagnostics Tools per Shop



46.8% Complain about their inability to diagnose entire fleet with a single tool and subscription

#### Potential users

- Shop repairs offering repair and maintenance services for all makes of light,
   medium and heavy duty, trailers, buses, etc.
- Fleets and transport/logistic companies
- Municipalities
- Counties
- Fire stations
- Garbage/Recycling departments
- Civil Works departments
- School districts
- Rental construction equipment companies
- Construction companies
- Forestry and Farm companies
- Service repair of boats, jet skis, stationary engines
- Etc.

### **Jaltest OHW**

**Earthmoving** machinery





**Forklifts** 



**Airport equipment** 



**Cranes** 



**Sweepers** 



Stationary engines



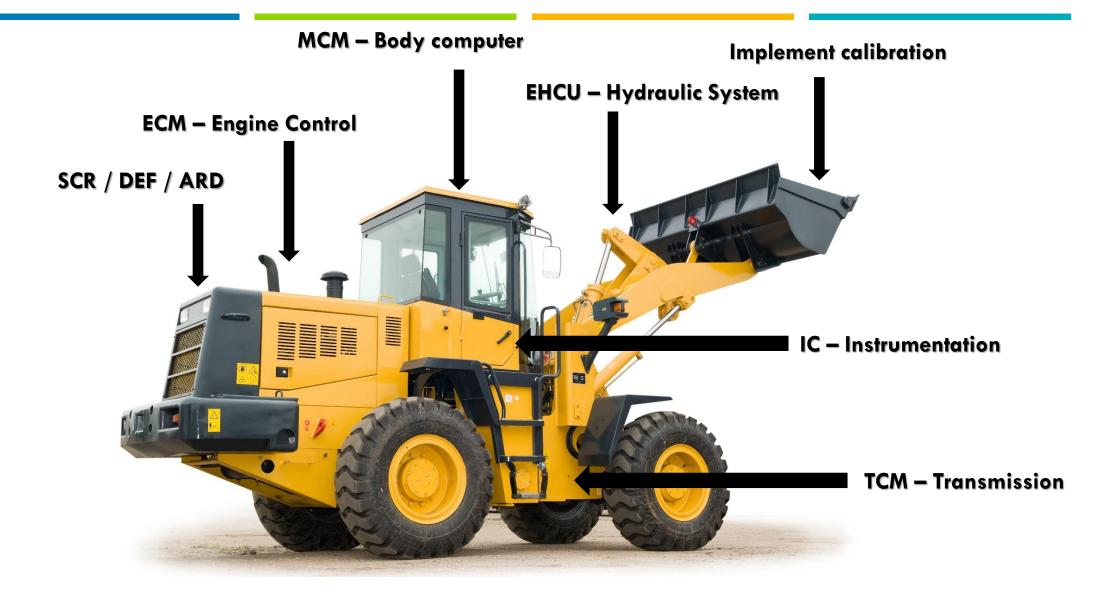








### **Jaltest OHW**



#### **Jaltest OHW**

Multiple licenses Different expiration dates Multiple interfaces/links No access to the OEM software



















**VOLVO** 

**CATERPILLAR** 



1 license 1 expiration date 1 link



## **Jaltest AGV**





Sugar Cane Harvester



Tractor



Combine



Self-propelled Sprayer



Forage Harvester



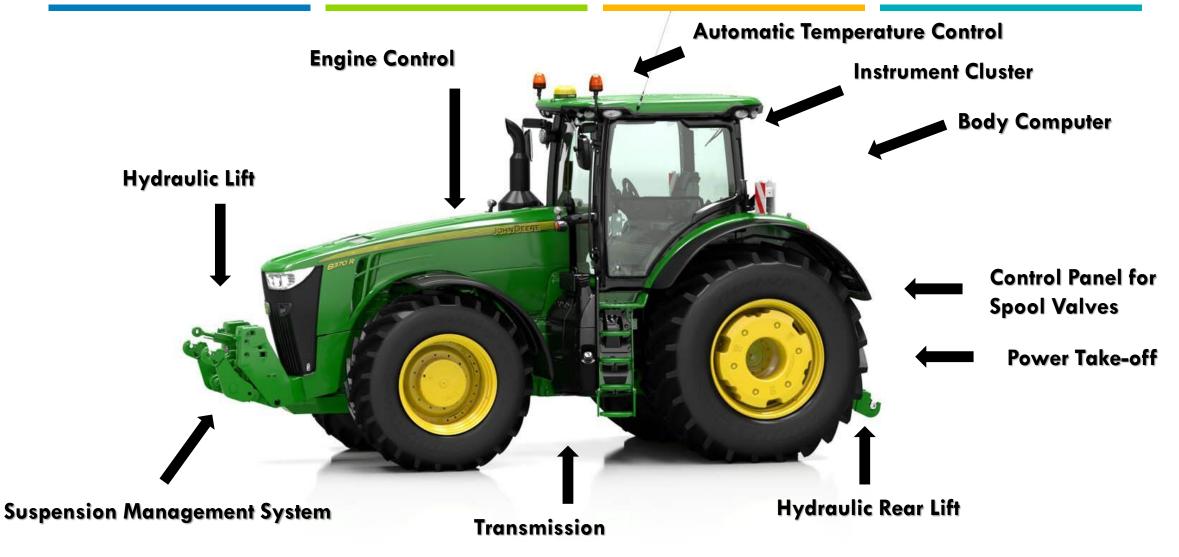
Grape Harvester



Telehandlers

### **Jaltest AGV**





Transmission Regulation System

#### **Jaltest AGV**



Multiples licenses
Different expiration dates
Multiple interfaces/links
No access to the OEM software

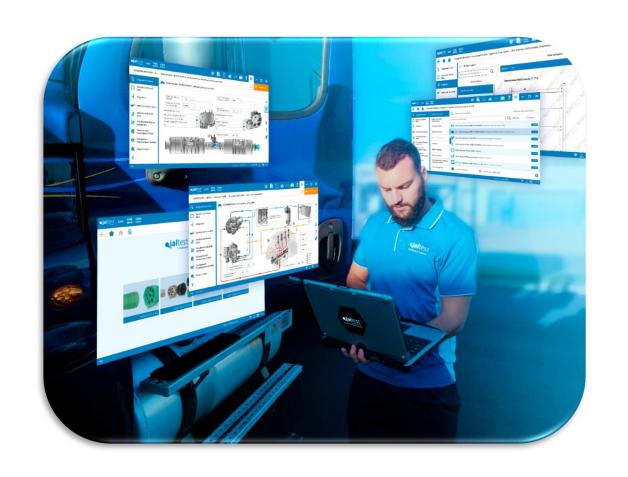


1 license 1 expiration date 1 link



## Why Jaltest?

- ✓ JALTEST Advantages Benefits for the SHOP
- ✓ How can Jaltest improve the efficiency of your business
- ✓ What to expect from Jaltest
- ✓ Why are we better than the competition
- ✓ Coverage in main systems

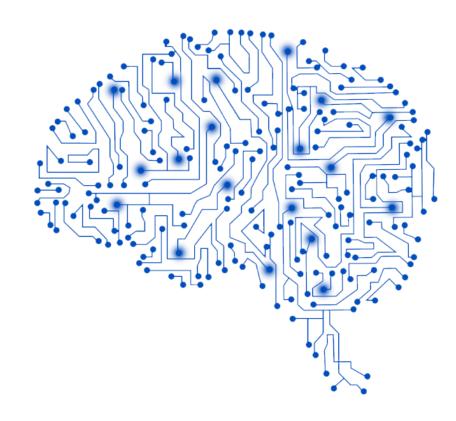


## JALTEST Advantages – Benefits for the SHOP

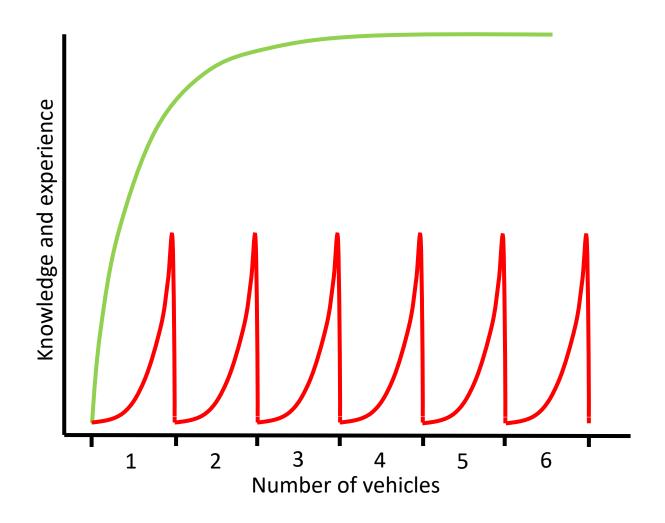
✓ By having the same layout no matter the make or model, the technicians can forget about having to learn different software:

#### 1 software - All Makes, All Models

- ✓ Jaltest's **easy** and **intuitive** software will make it possible for new technicians to learn faster
- ✓ Jaltest software allows for green techs to do actions only a specialized technician would do until now



## JALTEST Advantages – Benefits for the SHOP



#### With JALTEST

All Systems - 1 Software:

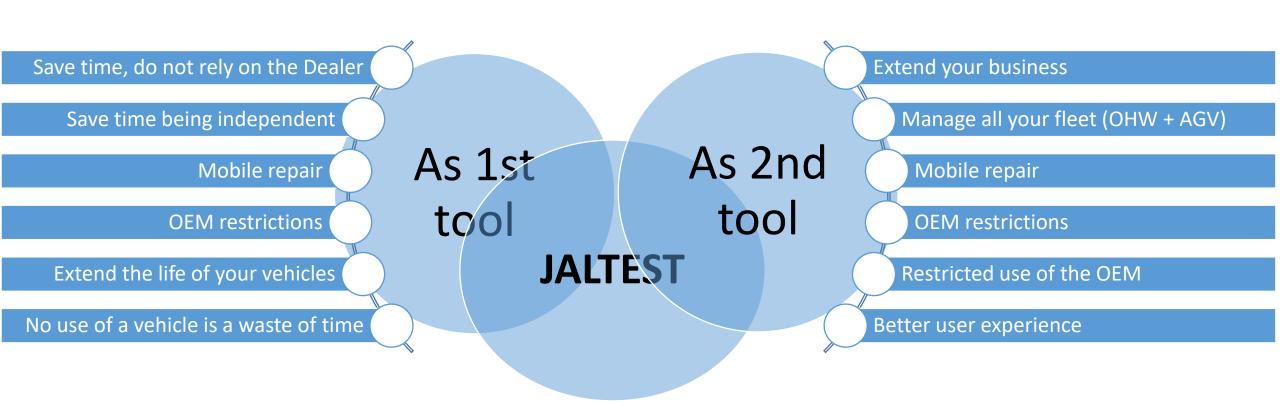
- Exponential Learning
- ✓ Experts in no time

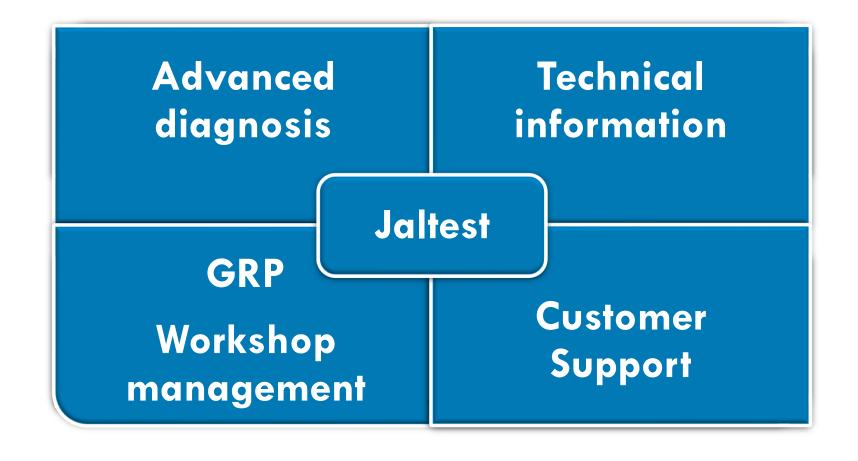
#### With OEM

Every system - different Software layout:

- ✓ Recurring learning process
- √ Never an expert

#### How can Jaltest improve the efficiency of your business





- ✓ All makes, all models, all systems
- ✓ Complete coverage at a competitive price
- ✓ Read functions
  - Guided diagnosis
  - Operation data
  - System data
- ✓ Bidirectional functions
  - Monitoring live data
  - System checks
  - Actuation of components
  - Data recorder
- ✓ Advanced functions (writing in the ECU)
  - Modification of parameters
  - Calibrations
  - Maintenance (regens, resets...)



# Technical information

#### Jaltest

- ✓ System technical data
  - General information
  - Components
- √ Wiring diagrams
- ✓ Vehicle service data
- ✓ Vehicle technical data
- √ Troubleshooting
  - By fault code
  - By symptom
- ✓ Releases & Procedures (TSBs)
- ✓ Component Replacement Guides
- ✓ Repair Times

- ✓ Customer list
- √ Vehicle list
- ✓ Reports
  - Diagnostic reports
  - Maintenance reports
- ✓ Workshop management
  - Work orders
  - Tasks
  - Reports of repair times
  - History of the use of the tool
- ✓ My tasks
- √ Human resources
  - Account users

**Jaltest** 

**GRP** 

Workshop management

#### Jaltest

Customer Support

- ✓ Technical support
  - English
  - Spanish
  - French
- ✓ Phone (Toll free)
- ✓ Email
- ✓ Remote Assistance
- √ Jaltest Feedback

#### Why are we better than the competition

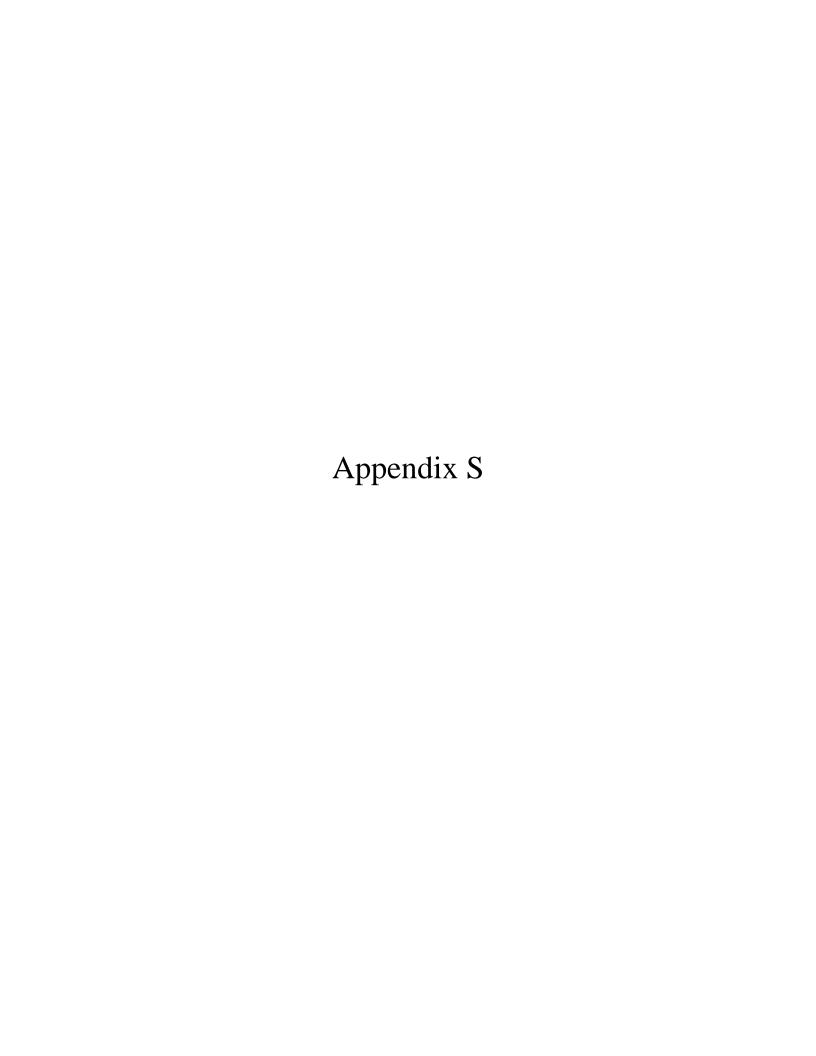
BETTER COVERAGE	MANY DIFFERENT KINDS OF MACHINERY
ADDITIONAL FUNCTIONS	FASTER
INTUITIVE AND EASY TO USE	EXPERIENCED SUPPORT TEAM
EXCELLENT CONTENT	IN CONSTANT EVOLUTION
OUR LEVEL OF EXPERTISE & KNOW-HOW	UNIQUE GLOBAL SOLUTION FOR THE WORKSHOP

## Thank you!

## Cristian Palomanes cristian.palomanes@cojaliusa.com

Isidro Flores
Isidro.flores@cojaliusa.com







33172 - Doral - FLORIDA (USA)

EIN: 27-3488599

Tel. (305) 960 7651 Fax. (305) 718 3326 http://www.jaltest.com

E-Mail: customersupport@jaltest.com

#### **QUOTATION**

**University of the Fraser Valley** 

45070 Caen Ave

00000000 EIN:

A/A: Jamie Ubell

Paym	ent Terms	Customer	Number	Date
03	IN ADVANCE TRANSFER	CA009	001/00009054	06/18/2020

Reference	Description	Qty.	Price	Disc. %	Amount
29209	JALTEST CV KIT	1.00	7,325.00		7,325.00
29762	Jaltest AGV. Activation. License of use	1.00	700.00		700.00
29761	Jaltest AGV. Renewal license of use	1.00	600.00		600.00
29770	Software activation. Jaltest USA OHW License of Use	1.00	950.00		950.00
29763	One Year License of Use. Jaltest USA OHW	1.00	695.00		695.00
29758	Jaltest AGV Cables set (USA)	1.00	660.00		660.00
29769	Jaltest OHW cable set	1.00	660.00		660.00
JDC112A	PLC DIAGNOSIS CABLE	1.00	290.00		290.00
JDC40AM2	PLC Trailer Power Adapter	1.00	84.00		84.00
29533	Jaltest Rugged PC	1.00	1,596.00		1,596.00

Gross	Com. Disc.	Disc. A/P	Freight	Amount	TOTAL	
13,560.00	0.00	0.00	0.00	13,560.00	13,560.00	USD

Comments Jaltest Technical Schools Program: UFV

1x Jaltest Link Kit (FULL Coverage: CV-OHW-AGV)

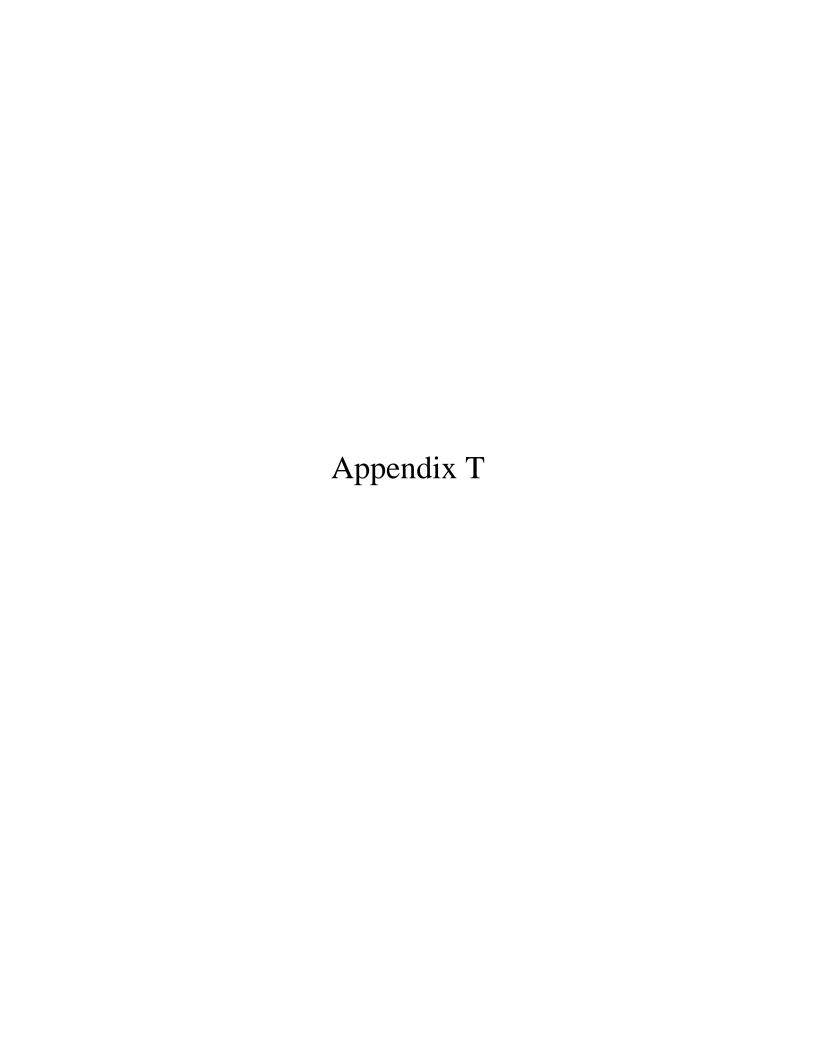
1x Jaltest Rugged PC (Panasonic)
1x Jaltest AGV Cable Set

1x Jaltest OHW Cable Set

1x Jaltest PLC Connector (Trailer Diagnosis)

1x Jaltest PLC Power Adapter

Yearly License Renewals will be for FREE.





33172 - Doral - FLORIDA (USA)

EIN: 27-3488599

Tel. (305) 960 7651 Fax. (305) 718 3326 http://www.jaltest.com **QUOTATION** 

**University of the Fraser Valley** 

45070 Caen Ave

00000000 EIN:

A/A: Jamie Ubell

E-Mail: customersupport@jaltest.com

Payment Terms		Customer	Number	Date	
03	IN ADVANCE TRANSFER	CA009	001/00009054	06/18/2020	

Reference	Description	Qty.	Price	Disc. %	Amount
29209	JALTEST CV KIT	4.00	7,325.00	10.00 %	26,370.00
29762	Jaltest AGV. Activation. License of use AGV Software Upgrade	4.00	700.00	10.00 %	2,520.00
29761	Jaltest AGV. Renewal license of use	4.00	600.00	10.00 %	2,160.00
29770	Software activation. Jaltest USA OHW License of Use OHW Software Upgrade	4.00	950.00	10.00 %	3,420.00
29763	One Year License of Use. Jaltest USA OHW	4.00	695.00	10.00 %	2,502.00
29758	Jaltest AGV Cables set (USA)	4.00	660.00	10.00 %	2,376.00
29769	Jaltest OHW cable set	4.00	660.00	10.00 %	2,376.00
JDC112A	PLC DIAGNOSIS CABLE	4.00	290.00	10.00 %	1,044.00
JDC40AM2	PLC Trailer Power Adapter	4.00	84.00	10.00 %	302.40
29533	Jaltest Rugged PC	4.00	1,596.00		6,384.00

Gross	Com. Disc.	Disc. A/P	Freight	Amount	TOTAL	
54,240.00	4,785.60	0.00	0.00	49,454.40	49,454.40	USD

Jaltest Technical Schools Program: UFV Comments

4x Jaltest Link Kit (FULL Coverage: CV-OHW-AGV)

4x Jaltest Rugged PC 4x Jaltest AGV Cable Set

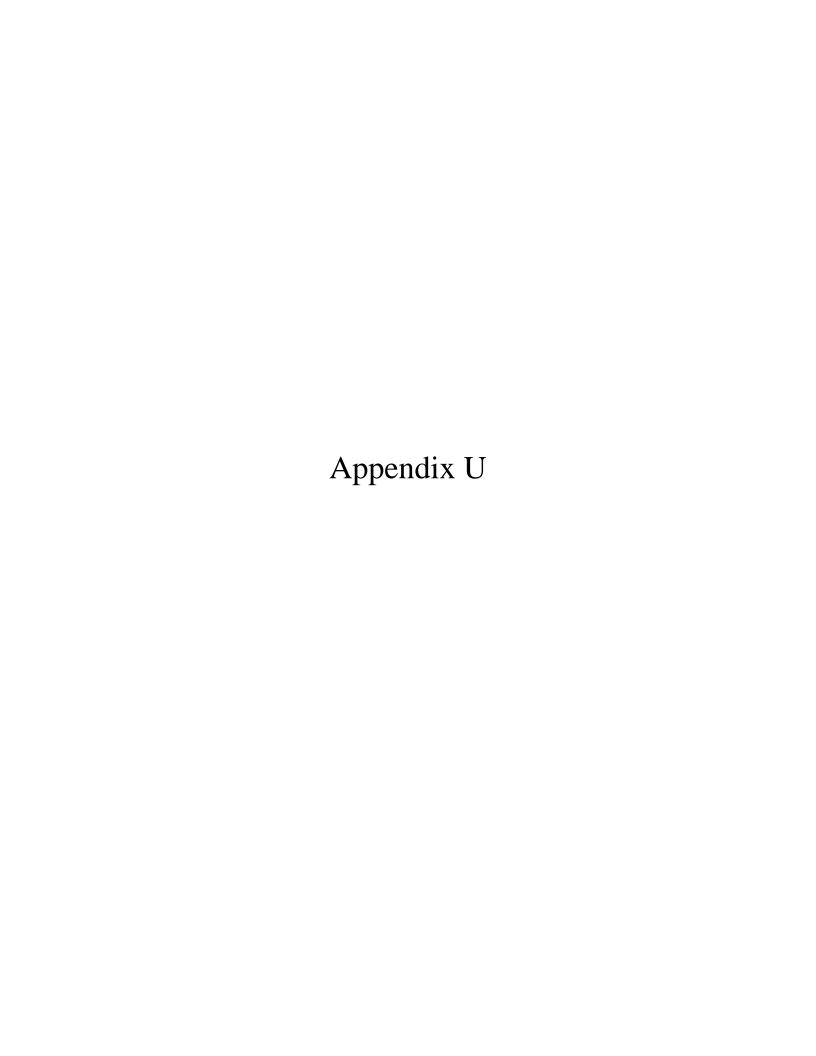
4x Jaltest OHW Cable Set

4x PLC Connector (Trailer Diagnosis)

4x PLC Power Adapter

10% Volume Discount

Yearly License Renewals will be for FREE





33172 - Doral - FLORIDA (USA)

EIN: 27-3488599

Tel. (305) 960 7651 Fax. (305) 718 3326 http://www.jaltest.com

E-Mail: customersupport@jaltest.com

#### **QUOTATION**

**University of the Fraser Valley** 

45070 Caen Ave

00000000 EIN:

A/A: Jamie Ubell

Payment Terms		Customer	Number	Date
03	IN ADVANCE TRANSFER	CA009	001/00009054	06/18/2020

Reference	Description	Qty.	Price	Disc. %	Amount	
29209	JALTEST CV KIT	1.00	7,325.00		7,325.00	,
JDC112A	PLC DIAGNOSIS CABLE	1.00	290.00		290.00	
JDC40AM2	PLC Trailer Power Adapter	1.00	84.00		84.00	
29533	Jaltest Rugged PC	1.00	1,596.00		1,596.00	

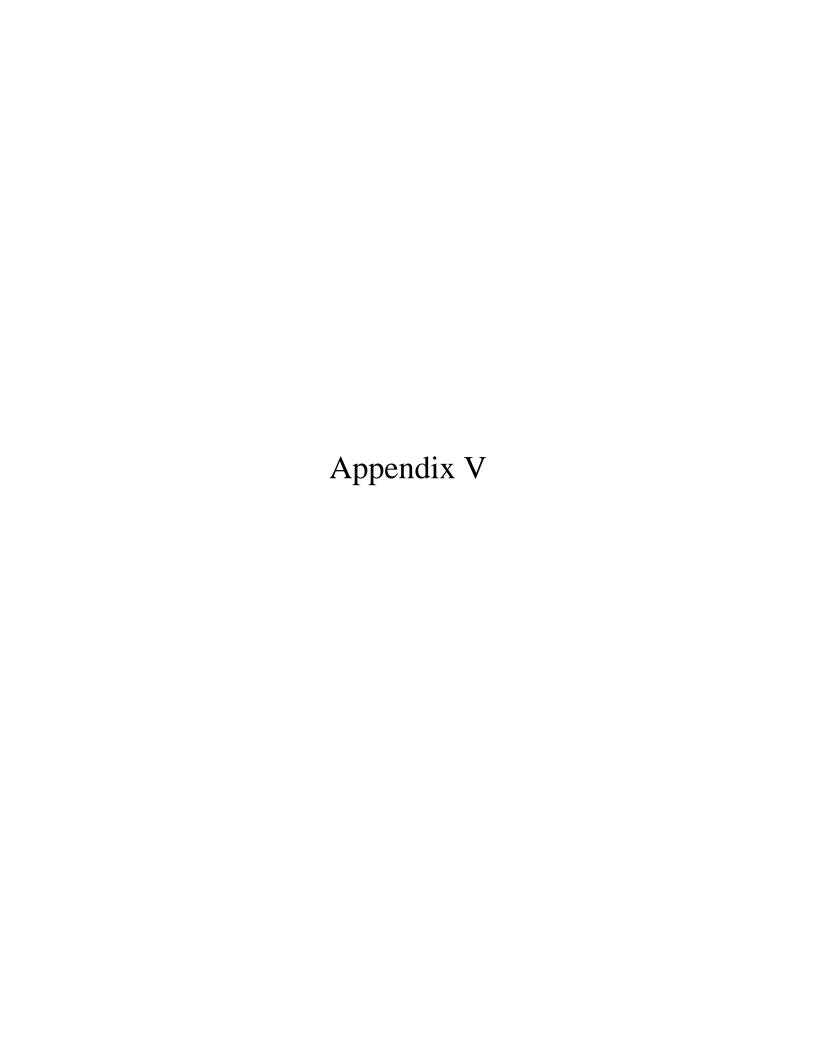
Gross	Com. Disc.	Disc. A/P	Freight	Amount	TOTAL	
9,295.00	0.00	0.00	0.00	9,295.00	9,295.00	USD

Jaltest Technical Schools Program: UFV Comments

1x Jaltest Link Kit (CV Coverage)

1x Jaltest Rugged PC
1x Jaltest PLC Connector (Trailer Diagnosis)
1x Jaltest PLC Power Adapter

Yearly License Renewals will be for FREE





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Payment Terms		Customer	Number	Date
03	IN ADVANCE TRANSFER	CA009	001/00009054	06/18/2020

Reference	Description	Qty.	Price	Disc. %	Amount
29209	JALTEST CV KIT	4.00	7,325.00	10.00 %	26,370.00
JDC112A	PLC DIAGNOSIS CABLE	4.00	290.00	10.00 %	1,044.00
JDC40AM2	PLC Trailer Power Adapter	4.00	84.00	10.00 %	302.40
29533	Jaltest Rugged PC	4.00	1,596.00		6,384.00

Gross	Com. Disc.	Disc. A/P	Freight	Amount	TOTAL	
37,180.00	3,079.60	0.00	0.00	34,100.40	34,100.40	USD

Jaltest Technical Schools Program: UFV Comments

4x Jaltest Link Kit (CV Coverage)

4x Jaltest Rugged PC
4x Jaltest PLC Connector (Trailer Diagnosis)
4x Jaltest PLC Power Adapter

10% Volume Discount

Yearly License Renewals will be for FREE