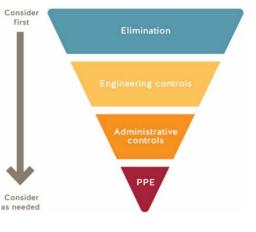


The BCIT COVID-19 Go-Forward Plan outlines the risk assessments, control measures, and the organizational process for our safe return to campus. All returning programs/courses must adhere to this process. Please refer to the <u>BCIT COVID-19 Go-Forward Plan</u> for additional information.

#### **CONTACT INFORMATION**

Course/Program Name:	Technology Teacher Education Diploma (44 students) Mechanical Engineering, Manufacturing Technology (21 students)							
Proportion of program offered on campus:	40							
Start date:	Sept 14, 2020		End date:	Dec 4, 2020				
# of students:	65		# of employees:	10				
Completed by:	Name	Position		Date				
	Brent Dunn	Associate	e Dean	Sept 2, 2020				



#### **ROOM INFORMATION**

In this section, please identify all of the rooms that will be used by this returning program/course. NOTE: Common areas are covered by the BCIT COVID-19 Go-Forward Plan. Type of Space Capacity **Room Number Campus/ Building** Current capacity due to COVID-19 Include washrooms and breakout rooms Floor Plans found Automotive lab Burnaby SW9 SW9-102 13-12 students, 1 instructor 7 – 5 students, 1 instructor, 1 technician SW9-102B Foundry Woodworking shop 14 – 12 students, 1 instructor, 1 SW9-103 technician Machine Shop 14 – 12 students, 1 instructor, 1 SW9-106 technician but room capacity higher if all equipment in use Used as corridor, no student access to Toolroom SW9-106B tools 9-8 students, 1 instructor Welding lab SW9-106E SW9-107 Plastics lab 8 – 7 students, 1 instructor



SW9-117	Timetabled classroom	13 – 12 students, 1 instructor
SW9-123	Electronics lab	12 – 11 students, 1 instructor
SW9-233	Classroom	Will be used by 1 student at a time

#### **RATIONALE FOR ON-CAMPUS ACTIVITY**

Please provide a short description explaining the need for students to be on campus. Your narrative should be focused on the practical elements of the program or activity that are critical to achieving learning outcomes, and why on campus components cannot be replicated in an online or alternative environment (e.g. student bringing learning equipment home).

Hands-on training is required in many of our programs due to the practical nature of the programs. Students cannot access specialized equipment outside of the classroom.

#### **CONTROL MEASURES**

#### **COVID-19 SAFETY PLAN: CONTROL MEASURES CHECKLIST**

#### Directions for completing a Safety Plan:

- 1. First step of this process is to review the BCIT COVID-19 Go-Forward Plan as the overall planning document for this process.
- 2. Use this checklist as a tool to assess COVID-19 control measure preparedness for students and employees and the spaces they will be using. Refer to the BCIT COVID-19 Go-Forward Plan for standardized safety guidelines and procedures.
- 3. For each control measure, state the details. If the control measure is a 'No' or 'NA', please provide a brief explanation.
- 4. The manager requests all PPE requirements by submitting this draft Safety Plan to the PPE@bcit.ca.
- 5. Implement all the safety measures in this Safety Plan.



6. The manager completes a site visit to ensure all control measures and safety supplies are in place.

7. The manager signs the completed Safety Plan and submits it to <u>returntocampus@bcit.ca</u> for approval.

8. Once approved, the COVID-19 Safety Plan is posted in all work areas identified within this plan.

*Note:* The workspaces cannot be used until all applicable control measures are in place and Safety Plan is approved. For additional resources the <u>Risk</u> <u>Assessment Controls Guidance and Hierarchy of Controls</u>. For assistance email <u>ssemohs@bcit.ca</u>.

#	Control Measure	Yes	No	NA	Details (as per Directions)
ELIN	INATION	•			
1.	Room(s) set up to allow for 2 metres physical distancing during instruction and practice. Note: Contact returntocampus@bcit.ca for room capacity and layout if needed.				Exceptions allowed as per <u>BCIT COVID-19 Go-Forward Plan</u> , Risk Matrix Summary (explain): Please see individual room plans for barriers where 2m distancing cannot be maintained.
2.	Demonstration, work and assessment stations are set-up to allow for 2 metres physical distancing.	$\boxtimes$			Exception allowed as per <u>BCIT COVID-19 Go-Forward Plan</u> , Risk Matrix Summary (explain): Please see individual room plans for barriers where 2m distancing cannot be maintained.
3.	Identified area(s) where students wait outside of teaching space until allowed inside by instructor.	$\boxtimes$			We have been instructed that we are not to use hallways for queuing, therefore, classrooms will be opened 10 minutes prior to start of class and students will be instructed to maintain 2m distancing when entering the space.
4.	Work has been scheduled to minimize numbers of individuals on campus at one time.	$\boxtimes$			Sets are divided in half or thirds to match the capacity of the spaces. Students are scheduled to minimize trips to campus so that most instruction is online for two to three days/week. Where different programs share the same shop space, the schedule for the room has been arranged so just one program is using the room on a given day. This minimizes the number of students in the shop and the number of students in the building.
5.	In shared spaces, safety protocols have been put in place to reduce close contact between users.	$\boxtimes$			Please see individual room plans for more detail.
6.	Movement within the room is identified, such as with directional arrows, for walkways and entrances/exits.				Signs or arrows on the floor identifying directions. Depending on the space, markings will be placed or walkways will be obvious due to position of barriers. In some spaces, students will be called into room in order so they can proceed to their workstations while maintaining social distance from other students. Students will be required to exit in sequential order to maintain social distance.



#	Control Measure	Yes	No	NA	Details (as per Directions)		
7.	Water fountains are put out of service, and only touchless water bottle filling station available.	$\boxtimes$			One fountain in hallway (common space). The fountain has been taped off.		
8.	Mobile fans have been removed or put out of service.			$\boxtimes$	No fans		
7.	Washrooms have been identified.	$\boxtimes$			There are no washrooms within the lab spaces - all washrooms are in common spaces.		
8.	Break area(s) for student use have been identified.	$\boxtimes$			When students are on campus for a short duration, a break has not been planned. When students are on campus for a longer duration, breaks will be included in the day schedule. In labs where students are working at workstations/desks, students will be encouraged to take breaks and/or eat lunch at their individual workstations. Hand sanitizing or sinks will be availabl In labs where students are working at fixed equipment, students will be encouraged to take breaks and/or each lunch in adjacent labs where workstations are available, or in SW9-117, a classroom that has a capacity of		
9.	Break areas for employee use have been identified.	$\boxtimes$			Faculty will take breaks at their workspaces. These areas are covered under the Administrative Safety Plan.		
10.	Other:						
ENG	INEERING CONTROL MEASURES		1	1			
11.	<u>Barriers</u> are implemented to separate work areas or walk ways, when physical distancing not practical.	$\boxtimes$			Please see individual room plans for barriers where 2m distancing cannot be maintained.		
12.	Barriers are stable and do not introduce other safety hazards, e.g. tripping.						
13.	The impact on ventilation requirements have been considered if there's been a significant use change for the instructional space.				Complete a Facilities and Campus Development work requisition for assessment, as needed. The usage has not changed for any of the spaces.		
	Other:						
SIGN	IAGE (ADMINISTRATIVE) Signage is available @ <u>BCIT onlin</u>	ne Inve	ntory.	Guide	elines for posting signs are available on <u>ShareSpace</u> .		
13.	Posted: Physical distancing (2 m) sign(s) Item 1A	$\boxtimes$			Posted		
14.	Posted: Hand washing sign(s) Item 29B	$\boxtimes$			Posted		
15.	Posted: Health screen sign(s) Item 3C	$\boxtimes$			Posted		
16.	Posted: Hand washing sink location sign(s) Item 14A	$\boxtimes$			Where handwashing sinks are available. Posted		
17.	Posted: Hand sanitizing station location sign(s) Item 13A	$\boxtimes$			Posted		



#	Control Measure	Yes	No	NA	Details (as per Directions)
18.	Posted: Protect yourself sign(s) Item 21A	$\boxtimes$			Posted
19.	Posted: Occupancy limit of this room sign(s) Item 37A	$\boxtimes$			Posted
20.	Posted: Other signs				Please list:
ORIE	NTATION AND TRAINING (ADMINISTRATIVE)	•	•		
21.	Routine safety discussions held to review control measures and safety protocols.	$\boxtimes$			
22.	All students have completed the online <u>COVID-19 Pandemic On-</u> <u>Campus Guidelines</u> training.	$\boxtimes$			<i>How will compliance be checked:</i> Instructor will check each student in the cohort prior to first lab period for that cohort.
23.	COVID-19 safety Site orientation for students has been developed and posted in the Learning Hub.	$\boxtimes$			Procedure for orientation found <u>here</u> . Student COVID-19 Orientation Checklist found <u>here</u> .
24.	All employees have completed the online <u>BCIT Pandemic</u> Exposure Control Plan Training.	$\boxtimes$			
25.	All employees have completed the online <u>New Employee</u> Orientation module.	$\boxtimes$			New and Returning Employee Orientation Checklist found <u>here</u> . Each employee to save the checklist to their online New Employee Orientation course
26.	Other:				
RULE	S AND GUIDELINES (ADMINISTRATIVE)	•	•		
27.	All unnecessary and self-serve items have been removed from the spaces. <i>e.g., pens, paper, etc.</i>	$\boxtimes$			
28.	Doors that students are to use to enter and exit have been clearly identified.	$\boxtimes$			Signs or arrows on the floor
29.	Handouts, papers, and items are not physically provided to students.	$\boxtimes$			
30.	Students have dedicated tools/equipment, e.g., items are not shared between students.	$\boxtimes$			Students have personal and assigned toolboxes with small tools. No sharing during a class session. For larger and/or more expensive equipment, students will be instructed to sanitize hands before and after use where cleaning is impractical between uses. In other cases such as for electronic equipment, students will be instructed to wipe common touch points with disinfecting wipes prior to and after use.
31.	If cleaning common touch points or tools/equipment not practical, then it is identified when hands are washed/sanitized before and after use.				
32.	Work spaces/stations are dedicated for an individual or group use and not shared with others.				No sharing during a class session. All equipment to be cleaned between sessions where practical or students will be instructed to sanitize before and after use.



#	Control Measure	Yes	No	NA	Details (as per Directions)
33.	Single-use (disposable) products are used where feasible.	$\boxtimes$			Gloves will be single use. None of the equipment is single use/disposable.
34.	Measures are in place to accommodate student sick at home.	$\boxtimes$		Accommodation plan: Students who miss a lab will be given an alternate assign allowed to make up the lab at a later date.	
35.	Procedures in place to screen students on a daily basis.	$\boxtimes$			The <u>health screen</u> poster is available for reference and is posted on building doors. Students and employees are expected to self assess daily, and the <u>BCCDC self-assessment</u> tool can be used to support this.
36.	There is a procedure in place if a student or employee becomes ill on campus.	$\boxtimes$			Refer to the <u>COVID-19 Pandemic Scenario Playbook</u> for more information. If the person is reporting symptoms, ask them to avoid others and return home. If they require immediate medical attention, call First Aid and 911.
37.	There are procedures in place if a student or employee travels before coming to campus, or has been in close contact with someone who has tested positive for COVID-19.				Refer to the <u>COVID-19 Pandemic Scenario Playbook</u> for more information. Confirm if the person is aware of self-isolation <u>requirements</u> and <u>protocols</u> .
38.	Provisions made for students to maintain same lab/class cohort throughout the Term.	X			Students are grouped into sets of 22 and will stay in their cohort (set) for the term. Due to shop capacity limitations, sets have been further subdivided to form smaller groups of 7 to 11, depending on the capacity of the spaces and students will stay with the same smaller subset for the term.
39.	Other:				
PERS	SONAL PROTECTIVE EQUIPMENT (PPE). Refer to the PPE F	lowcha	art to d	leterm	ine what PPE is required for COVID-19 purposes.
40.	Appropriate PPE for the hazards of employee and student tasks are available to be provided (non-COVID-19 related ppe).				List the ppe and tasks/activities it is required for, and provide the quantity and unit of measure, if applicable (e.g. 2 boxes of 20 each box): Appropriate non-Covid PPE for the lab spaces and activities are unchanged from pre-Covid PPE requirements. Students are responsible for providing their own basic PPE such as safety glasses and safety footwear, however, specialized PPE for tasks such as forging, casting, and welding is provided by the institute. The program areas have enough PPE on hand for the term.
41.	Training is provided for the above PPE to students and employees.	$\boxtimes$			This is part of our normal operation. Instruction is given at the first lab session of the course and/or in safety courses. Instructors enforce PPE use continuously throughout each course.
42.	<u>Appropriate PPE for COVID-19</u> is available to be provided to students and employees. Supply requests emailed to <u>ppe@bcit.ca</u> .				Based on circumstances allowed for in the <u>BCIT COVID-19 Go-Forward Plan</u> , Risk Assessment Matrix Summary. List PPE and tasks/activities required for and provide the quantity and unit of measure, if applicable (e.g. 2 boxes of 20 each box): Most of the COVID-related PPE consists of hand sanitizer and/or sanitizing wipes near or at shared equipment. This has been ordered. For benchwork where dirt, grease, and oils are present, Spray Nine will be used to clean the benches.



#	Control Measure	Yes	No	NA	Details (as per Directions)
					Students always supply their own safety eyewear and the program has gloves in stock. The program also has a rag service so shop rags will be used to wipe down the benches and equipment after cleaning with disinfectant spray.
43.	PPE safe <u>donning</u> , <u>doffing</u> , <u>disposal</u> , <u>and disinfecting instructional</u> materials are available for students and employees.				Post applicable signs in a visible location if ppe required. Use the <u>Student Orientation checklist</u> to assist orientation/training by instructors. Use the <u>Employee Orientation checklist</u> to assist orientation/training by their supervisors. In most spaces, COVID-related PPE is not required. In areas where COVID- related PPE is required such as masks and gloves, signs will be posted.
44.	Other:				
<b>CLE</b>	ANING		•	•	
45.	Facilities is aware of the cleaning needs for the area. Facilities work requests have been submitted.				Cleaning includes common touch points and appropriate frequency for the area. This includes high touch areas. Provide FCD work request number(s) Work requests 1450738, 1450791, and 1451135 submitted to clean common
					touch points in shops/labs and tables and chairs in SW9-117 classroom. A cleaning schedule was included as shops will be not be used every day.
46.	Training will be provided to faculty and students performing cleaning duties and cleaning materials have been provided.				Cleaning Standard Operating Procedures have been located <u>here</u> . What are the cleaning products/materials:
					What ppe is required: Most COVID-related disinfecting will be performed by Facilities. If faculty or
					students are required to clean and/or disinfect equipment, they will use either disinfecting wipes or Simple Green. Instructions will be posted and reviewed with students.
47.	Assessment of sufficient number of hand wash stations conducted, and an appropriate number of handwashing stations are available	$\square$			
48.	Handwashing station(s), stocked, easily accessed, and have been identified to students and employees.	$\boxtimes$			Sink Location:SW9-123, SW9-102, SW9-103, SW9-106, SW9-107 Stocked with soap Y $\boxtimes$ N $\square$ paper towel Y $\boxtimes$ N $\square$
49.	Hand sanitizing station(s), stocked, and have been identified to students and employees.				<b>ABHS</b> (Alcohol-Based Hand Sanitizer): Location(s) Hand sanitizer will be available in all spaces, even when sinks are present, in order to minimize student travel through the space. Hand sanitizer will be available at or near all shared equipment. Where students are working at individual stations, sanitizer will be made available at each station where students and instructors may need to



#	Control Measure	Yes	No	NA	Details (as per Directions)
					sanitize before and after touching shared equipment e.g. when the instructor has to touch student work or tools to demonstrate technique.
					Will hand sanitizer be refilled by department: $Y \boxtimes N \square$ If No, describe: Hand pumps will be used and replenished with new bottles when empty. Usage will be monitored so supplies can be replenished as needed.
50.	All Safety Data Sheets (SDS) and cleaning procedures used are found <u>here</u> .	$\boxtimes$			If not, describe: SDS are always available for materials normally used in the lab, however, SDS sheets are not provided for special cleaners that will be used by cleaning contractors.
51.	The area(s) have been decluttered so that cleaning is simplified.				
52.	Barrier cleaning process has been arranged if the barrier(s) could become contaminated.				Barriers can become contaminate if they are a touch point or if the contaminated with droplets by e.g. coughing or sneezing.
53.	Common touch points and tools/equipment that must be shared are identified and cleaned between students and classes.				Cleaning/sanitizing procedures for common touch points and shared items are posted e.g. shared machinery, equipment, tools, etc. Identify who will clean and how often (e.g. staff and/or students): Varies by space. In some cases, students will clean benches or shared equipment. In other spaces, facilities work requests have been submitted for between-class cleaning. Due to the quantity and variety of large, fixed equipment, it is impractical to clean the equipment between students so students will be required to sanitize before and after using the equipment. In some situations, students will be required to wipe down the equipment before and after use using provided disinfecting wipes.
54.	Storage space for personal articles have been identified and are cleaned regularly.				Who will clean: Varies by space and by equipment. Students and/or cleaners. Where is the storage: The storage areas vary by the location/lab/space. In some areas, a separate classroom (SW9-233) is used. In others, students will take their supplies with them to their workspaces (e.g. SW9-123, 102, 107) or will place their personal articles in assigned cubbyholes and cleaned daily by FCD (MANU students using SW9-106).
55.	Other:				
AUD	IT AND CONTINUOUS IMPROVEMENT				
56.	There is a plan to conduct <u>regular inspections</u> of all control measures and safety protocols to ensure they are in place.				<i>Ensure this COVID-19 Safety Plan is posted. Who will conduct these inspections and how often?</i> Faculty will perform inspections on a weekly basis.



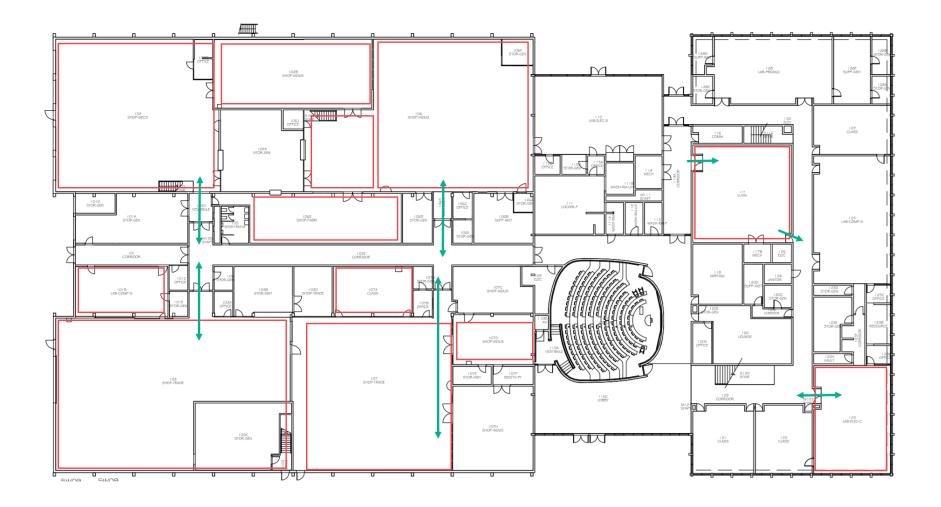
#	Control Measure	Yes	No	NA	Details (as per Directions)
57.	Audits of inspections are planned to ensure that control	$\boxtimes$			Who conduct the audits and how often?
	measures continue to be effective.				Program heads for the respective areas will audit on a weekly basis.
					Associate Dean will audit on a monthly basis.

#### **APPROVAL**

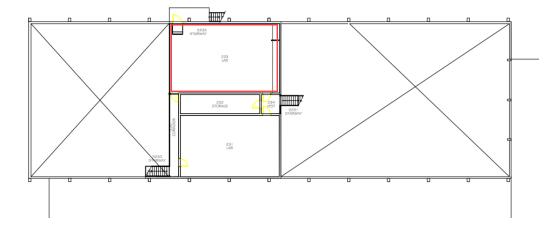
All COVID-19	All COVID-19 risk control measures for this campus activity are in place.						
Manager	Name BRDunn Brent Dunn	Position Associate Dean	Date Sept 9, 2020				
EOC	Name Glen Magel	Position EOC Director	Date September 13, 2020				



Spaces Covered by this Plan in Buildings SW09









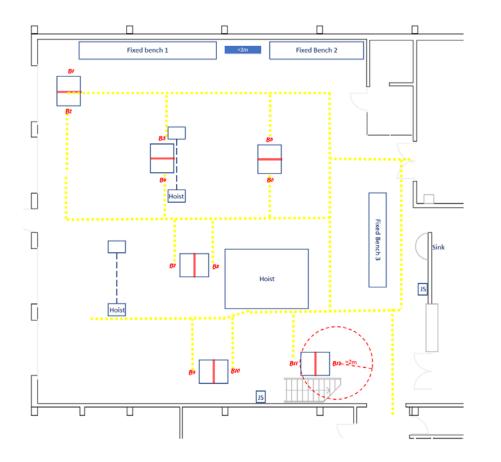
#### Room Schedules

	Mon	Tue	Wed	Thu	Fri
SW9-102	TTED3050		TTED4050		TTED3022
Auto	Oct 12-Dec 4		TTED 4075		TTED3044
102A					
Toolroom	TTED	TTED	TTED	TTED	TTED
102B			TTED3044		TTED3044
Foundry			Oct 12-Dec 4		TTED 3004
	TTED 3001				
103 Wood	TTED 3033		TTED 3002	TTED 3001	
103C	TTED 3001				
Glueup	TTED 3033				
106		MANU3312	MANU3310	TTED5020	TTED3022
1005					TTED2004
106E				<b>TTEDE000</b>	TTED3004
Welding				TTED5020	Oct 12-Dec4
107		MANU3317			
117					
Classroom	TTED	TTED	TTED	TTED	TTED
			TTED3060		
123		TTED 4060	Oct 12-Dec 4		TTED3044
233	TTED	TTED	TTED	TTED	TTED



# COVID-19 SAFETY PLAN ACADEMIC SPACES SW09-102 Safety Plan

SW09-102 will accommodate 12 physically-distanced 4'x5' bench stations, with 4' wide barriers ( ) installed in middle of benches. Benches are varying sizes; if barriers are identical heights, consideration will be made in assigning tall students to high benches to ensure that barriers are sufficient height. Students will only use vices that are on opposite corners from each other. Each bench has stowage areas below the surface for personal belongings.



#### Use Description SW9-102

Course	TTED 3009 Basic Safety Foundations (Sept 9 – Oct 9)		
Program	Technology Teacher Education Diploma		
Number of students per lab session 11 max (1 lab session/week, most labs online)			
Description of Equipment used	SW9-102 workbenches		
Why do students need to use this space? What's special that cannot be done at home?	Students require access to specialized equipment.		

Course	TTED 3022 Tool Essentials - Metalworking		
Program	Technology Teacher Education Diploma		
Number of students per lab session	11 max (1 lab session/week, students will attend every second week)		
Description of Equipment used	SW9-102 workbenches for benchwork		
	SW9-106 for equipment (Considered within the SW9-106 plan)		
	• 11 lathes		
	• 2 mills		
	• 1 drill presses		
	<ul> <li>1 each sheet metal equipment (punch, brake, shear, notcher)</li> </ul>		
Why do students need to use this	Students require access to specialized, expensive equipment.		
space? What's special that cannot			
be done at home?			

Course	TTED 3044 Materials Science	
Program	Technology Teacher Education Diploma	
Number of students per lab session	11 max (1 lab session/week, students will attend every second week)	
Description of Equipment used	<ul> <li>SW9-102 workbenches for benchwork</li> <li>SW9-102B (Foundry) (Note: SW9-102B is considered within the SW9-106 plan)</li> <li>1 oven (1 student at a time)</li> <li>1 forge (1 student at a time)</li> </ul>	



Why do students need to use this	Students require access to specialized, expensive equipment.
space? What's special that cannot	
be done at home?	

Course	TTED 5020 Teaching Metal Product Manufacturing	
Program	Technology Teacher Education Diploma	
Number of students per lab11 max (1 lab session/week, students will attend every second week)session		
Description of Equipment used	<ul> <li>SW9-102 workbenches</li> <li>SW9-106 for equipment (Note: Considered within the SW9-106 plan) <ul> <li>11 lathes</li> <li>2 mills</li> </ul> </li> <li>SW9-106E welding lab (Note: Considered within the SW9-106 plan)</li> </ul>	
Why do students need to use this space? What's special that cannot be done at home?	Students require access to specialized, expensive equipment.	

Course	TTED 3050 Power Technology Foundations (Oct 13 – Dec 4)
Program	Technology Teacher Education Diploma
Number of students per lab	11 max (1 lab session/week, students will attend every second week)
session	
Description of Equipment	SW9-102 workbenches
used	
Why do students need to use	Students require access to specialized, expensive equipment.
this space? What's special	
that cannot be done at home?	

Course	TTED 4050 Power Technology for TTED (Sept 9 – Nov 6)	
Program	Technology Teacher Education Diploma	
Number of students per lab	11 max (1 lab session/week, students will attend every second week)	
session		



Description of Equipment	SW9-102 workbenches
used	
Why do students need to use	Students require access to specialized, expensive equipment.
this space? What's special	
that cannot be done at home?	

#### Barriers

Location	Quantity	Size (WxH inches)	Mounting (Free standing, table top, etc.)	Opaque/Clear	Comment
B1 -B14	6	48 x 48	Table top (custom)	Clear	

#### PPE and Sanitizing

ltem	Quantity	Consumption rate	Location	Comment
Pump bottle hand sanitizer	20	2/term	At each workbench and at each stationary table where there may be shared tools	
Disinfecting wipes	30 containers	2/term	At each workstation At instructor table	1 at each student and fixed bench
Spray Nine disinfectant spray				
Nitrile Gloves	Already stocked by program			



# COVID-19 SAFETY PLAN

### ACADEMIC SPACES

Disinfecting of	Facilities work request <b>1450738</b> will have touch points such as door handles, light switches,	
common	sinks, faucets, etc. disinfected at the end of each work day.	
touchpoints.		



**Technology Teacher Education (SW09-103 & 103C)** - Notes: This woodworking shop features 11 physically distanced workstations, and access to various pieces of equipment. Equipemtn shown with an X will not be used. In some areas, just one piece of equipment will be used at a time to maintain social distancing. Pathways, bench placement, and barrier placement are not precise as drawn, but are 2m physically distanced while occupants are using benches/ equipment, and when moving throughout space. Students will be required to access room 103C to work on Glue-Up tables as part of their projects. 103C capacity is 2 students. Specialized tools are typically accessed by students in the 103B Tool Room, but instructor will instead sequester tools prior to instruction and leave on a cart outside this room. All other tools will be assigned to students for duration of instruction. Project storage in 103C will only be accessed prior to and following conclusion of classes.





#### Use Description SW09-103

Course	TTED 3001 Industrial Design		
Program	Technology Teacher Education Diploma		
Number of students per lab session	11 max (1 lab session/week, students attend every second week)		
Description of Equipment used 11 workbenches			
Why do students need to use this space? What's special that cannot be done at home?	Students require access to specialized equipment.		

Course	TTED 3002 Precision Measurement Foundations (Sep 9 – Oct 9)	
Program	Technology Teacher Education Diploma	
Number of students per lab session	11 max (1 lab session/week, students will attend every second week)	
Description of Equipment used 11 workbenches		
	Students supplied with individual measuring tools Some expensive tools shared	
Why do students need to use this space? What's special that cannot be done at home?	Students require access to specialized equipment.	

Course	TTED 3033 Tool Essentials - Woodworking	
Program	Technology Teacher Education Diploma	
Number of students per lab session	11 max (1 lab session/week, students will attend every second week)	
Description of Equipment used	11 workbenches	
	Students supplied with individual hand tools.	
Why do students need to use this space? What's special that cannot be done at home?	Students require access to specialized equipment.	



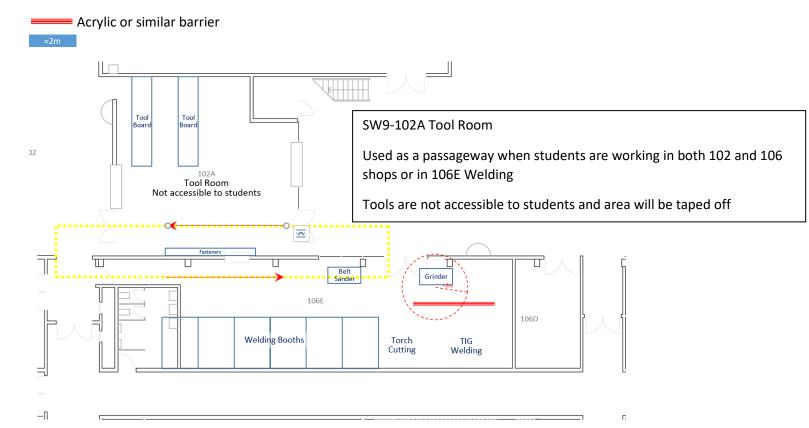
### PPE and Sanitizing

Item	Quantity	Consumption rate	Location	Comment
Pump bottle hand sanitizer	16		At each workbench and at each stationary table where there may be shared tools	
Disinfecting wipes	15		At each	
	Box 100		workstation	
			At instructor table	



#### Welding Shop & Tool Room: SW09-106E & 102A

Notes: The student capacity for this shop space is 6 students, based on the number of welding booths in this space. Students may use ancillary equipment such as the Torch Cutting or TIG Welding area, but only one at a time. If space permits, a barrier can be installed between the TIG/ Torch area to permit simultaneous use of the grinder. The belt sander can only be utilized if there is no movement in the corridor, which should be unidirectional to discourage accidental physical encroachment. This traffic flow supports the need for students to access the Tool Room (102A). However, precaution will have to be exercised within the Tool Room and welding booths to prevent potential for students to bump into each other on blind corners.



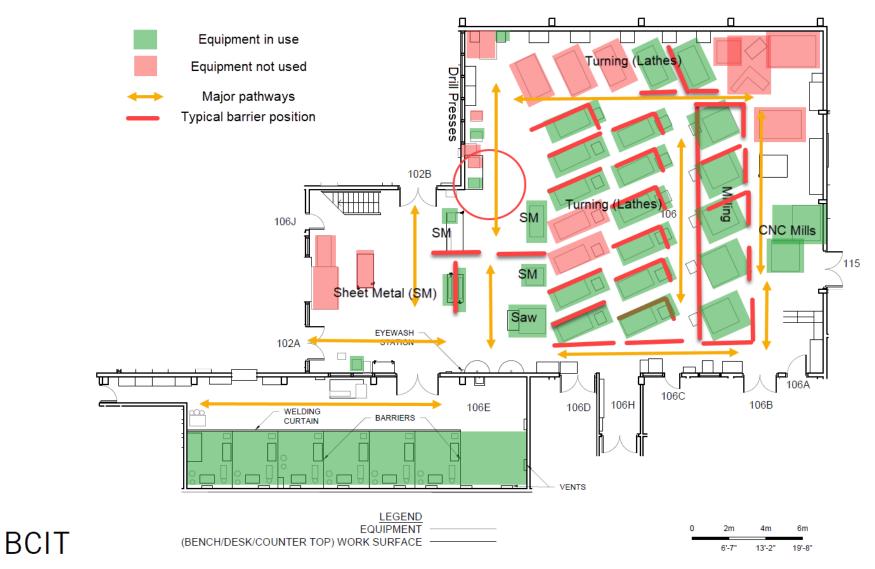


#### Machine Shop & CNC: SW09-106

Notes: Several distinct activities occur in this shop. Two different programs use the space, and students have been divided into smaller groups of 11 or 7. For the CNC Mills, there are typically a group of students per machine plus an instructor. However, to enforce physical distancing, only one student will operate each machine, for a total of two students plus one instructor. This activity requires the instructor to be in very close proximity to students, so other mitigating measures such as PPE be required for the instructor, provided the two students do not need to be in close proximity to each other. For the lathe and mill area, a student capacity of 11 can be achieved with discrete path markings and installation of barriers where noted is necessary to enforce physical distancing between students, given the tight spaces. Mills may be utilized by the same students that are utilizing the lathes. The CNC Mills will not be used at the same times as the Milling area. The Saw and the two pieces of adjacent sheet metal equipment (SM) will not be used at the same time as the adjacent lathes.

For benchwork, students will use the benches in the adjacent shop SW9-102. The shops are connected via several rooms which will be used as corridors.

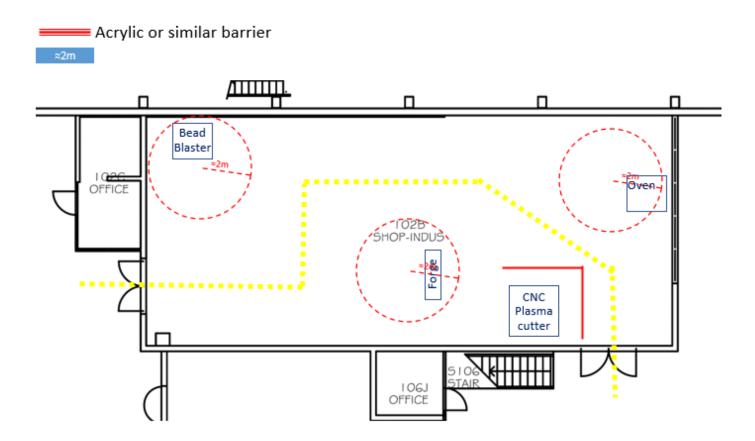






#### Foundry: SW09- 102B

Notes: Students will be using four pieces of equipment in this area including one oven, CNC plasma cutter, forge, and bead blast cabinet.





#### Use Description SW9-106

Course	MANU 3310	
Program	Mechanical Engineering Technology, Manufacturing Option	
Number of students per lab session	7 max (1 lab session/week, students will attend every third week)	
Description of Equipment used	5 Manual Milling machines	
	7 Manual lathes	
	1 Pedestal Grinders	
	2 Drill Presses	
Why do students need to use this	Students require access to specialized, expensive equipment.	
space? What's special that cannot		
be done at home?		

Course	MANU 3312	
Program	Mechanical Engineering Technology, Manufacturing Option	
Number of students per lab session	7 max (1 lab session/week, students will attend every third week and will be subdivide further for CNC	
	Milling demos or setup)	
Description of Equipment used	2 CNC milling machines	
	HAAS VF2, HAAS TM1	
Why do students need to use this	Students require access to specialized, expensive equipment.	
space? What's special that cannot		
be done at home?		

Course	TTED 3022 Tool Essentials - Metalworking	
Program	Technology Teacher Education Diploma	
Number of students per lab session	11 max (1 lab session/week, students will attend every second week)	
Description of Equipment used	SW9-102 for benchwork	
	SW9-106 for equipment	
	11 lathes	
	2 mills	



	1 drill presses
	1 each sheet metal equipment (punch, brake, shear, notcher)
Why do students need to use this	Students require access to specialized, expensive equipment.
space? What's special that cannot	
be done at home?	

Course	TTED 5020 Teaching Metal Product Manufacturing		
Program	Technology Teacher Education Diploma		
Number of students per lab session	11 max (1 lab session/week, students will attend every second week)		
Description of Equipment	SW9-102 for benchwork		
used	SW9-106 for equipment		
	11 lathes		
	2 mills		
	SW9-106E welding lab		
Why do students need to use	Students require access to specialized, expensive equipment.		
this space? What's special			
that cannot be done at home?			

Course	TTED 3004 Joining Process Foundations (Oct 13-Dec 4)
Program	Technology Teacher Education Diploma
Number of students per lab	11 max (1 lab session/week, students will attend every second week)
session	
Description of Equipment	SW9-106E welding lab
used	May need to locate some spare equipment in SW9-102B foundry
Why do students need to use	Students require access to specialized, expensive equipment.
this space? What's special	
that cannot be done at home?	



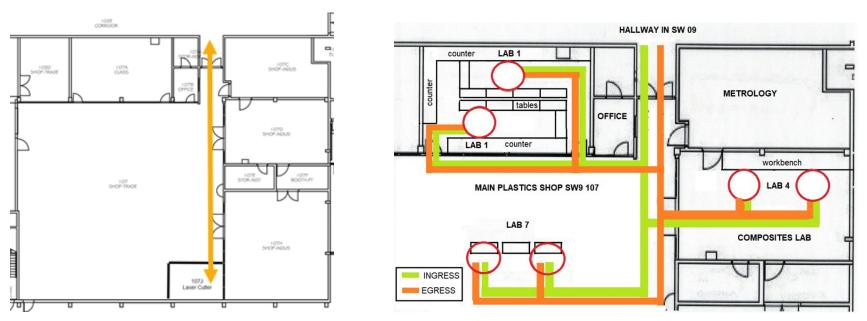
### PPE and Sanitizing

Item	Quantity	Location	Comment
Pump bottle hand sanitizer	1	At lab door sanitizing location At blast cabinet	In lieu for Sanitizing station. Used upon entry and prior to exit of lab
Disinfectant Wipes	8 containers	At each CNC mill (2) At each mill (5) At each lathe (12) At each sheet metal tool (4) At each drill press (2) At CNC Plasma (1) At blast cabinet (1)	Cleaning of equipment
Spray Nine Disinfectant Spray		In central location	
Nitrile gloves (medium)	Box 100		For using Spray 9
Nitrile gloves (large)	Box 100		For using Spray 9



#### SW09-107 shops

This large shop has several smaller rooms. The space is mainly used by the Manufacturing option of Mechanical Engineering and will be used by 7 students; 2 in SW9-107A, 3 in SW9-107D and 2 in SW9-107. On occasion, but not at the same time, one student from the TTED program may use the laser cutter in room SW9-107J.



#### Use Description

Course	MANU 3317		
Program	Mechanical Engineering Technology, Manufacturing Option		
Number of students	7 (1 lab session/week, students will attend every third week)		
Description of Equipment used	LAB 1: TESTING:		
	Purpose: this lab is critical to give the students hands-on feel for the properties of plastic materials.		
	They will test various materials according to ASTM formal test procedures.		
	Format: two students will be admitted to the classroom in 107 through their own individual entrances.		
	The room will be split in half by placing a row of tables down the middle. Each student will use only the		
	testing devices on their half on the classroom and at no time will they be required to share materials,		
	tools or space. Two meter separation between students can easily be maintained at all times. They will		
	be required to read and/or watch documentation as to how their tests are to be performed. The		
	instructor will visit each half of the classroom for instructional purposes only. Masks and/or face shields		
	will be worn as advised. The lab will not be repeated for one week, therefore no disinfecting of		
	equipment is anticipated.		
	LAB 4: COMPOSITE MANUFACTURING		
	Purpose: Composites are a huge and growing portion of the plastics industry. We have a well equipped		
	shop which will allow us to teach students the skill of manufacturing a composite (fiberglass) part.		
	Format: two students will manufacture parts at one time. There is sufficient space to easily maintain		
	two meter separation. The instructor will visit each space as required, utilizing mask/shields as		
	recommended. Each student will have their own tool kit and at no time will students be required to		
	share tools, materials or each other's space. Students and the instructor will enter and exit the		
	composites shop through one door. Lines and arrows will be placed on the floor to maintain flow and		
	spacing.		
	LAB 7: EXTRUDER SCREW INSPECTION		
	Purpose: Approximately 85% of plastics undergo the extrusion process at some point. As we are unable		
	to operate an extruder, typically done in teams, the students will have a hands-on opportunity to		
	examine the heart of the process, the extruder screw.		
	Format: Two students will each sit at their own table easily maintaining two meter separation. A third		
	table will be placed between their tables. The same three extruder screws will be measured by each		
	student in rotation. The third (separating) table will hold one screw and two hand sanitizing stations.		
	The students therefore will share the extruder screws (each screw is one piece), but each will have their		

	own toolkit and will not share tools or space at any time. The lab will not be repeated for seven days so there should be no need to sanitize the screws, tables or the tools. The instructor will visit each space as required, utilizing mask/shields as recommended.
Why do students need to use this	Students require access to specialized, expensive equipment so they have a meaningful educational
space? What's special that cannot	experience.
be done at home?	

Course	TTED 4060 Teaching Electronics 1
Program	Technology Teacher Education
Number of students	1 max in SW9-107J (Laser Cutter room)
Description of Equipment used	The Laser Cutter will be used by one student at a time
Why do students need to use this space? What's special that cannot be done at home?	Students require access to specialized, expensive equipment.

#### Barriers

Location	Quantity	Size (WxH inches)	Mounting (Free standing, table top, etc.)	Opaque/Clear	Comment
None required					

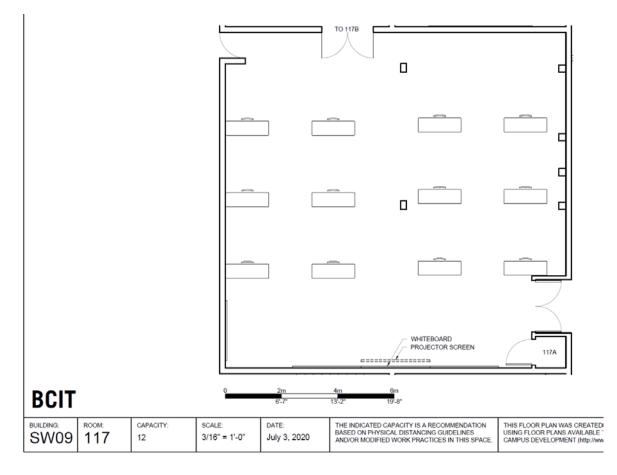
### PPE and Sanitizing

Item	Quantity	Location	Comment
Pump bottle hand sanitizer	2	On table with shared extruder screw (lab 7) At laser cutter	
Disinfecting wipes	2	At laser cutter	





#### SW09-117 – Classroom



#### Use Description

Course	FIRE 2084, FIRE 1050, FIRE 2080 (PTS)
Program	Fire Protection Inspection and Testing Associate Certificate
Number of students	12 max

Description of Equipment used	For midterm and final exam testing only. Faculty will be required to make alternate arrangements for examinations for students who are not able to come to campus.
Why do students need to use this space? What's special that cannot be done at home?	Exams are similar to certification exams and passing an exam allows students to register with ASTTBC to practice in the area of fire protection system inspection. All parties are concerned about exam integrity.

Course	TTED Program
Program	Technology Teacher Education
Number of students	12 max (11 students will be on campus at a time)
Description of Equipment used	N/A
Why do students need to use this space? What's special that cannot be done at home?	The space will be used as a lunch room for TTED students who are on campus for hands-on labs.

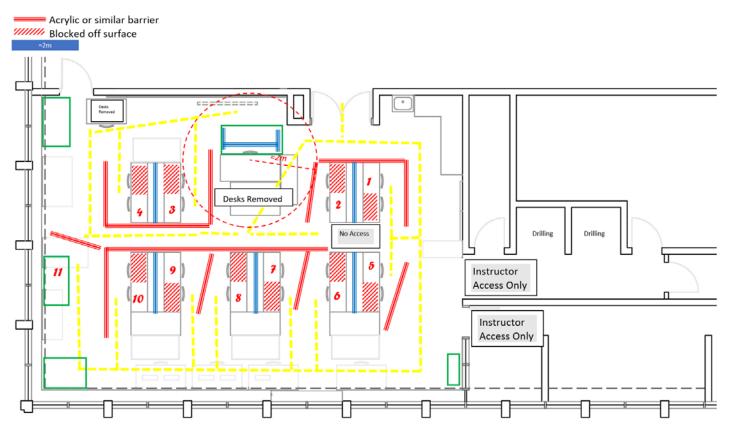
### PPE and Sanitizing

Item	Quantity	Location	Comment
Pump bottle hand sanitizer	2	At entrance and exit doors	Used upon entry and prior to exit of room
Disinfecting Wipes	12	At each table, for wiping down table and chair	Will also be cleaned at end of day by custodial staff



#### **Technology Teacher Education (SW9-123)**

Notes: The student capacity for this bench lab is 11 students, provided barriers are installed in noted locations, and students access desks from noted pathway. Drilling stations will not be utilized. Parts cabinets will also be blocked off, while parts will be pre-portioned and provided to students before activities, negating the need for students to move throughout room during lesson. Instructor may be required to step aside as students 2, 3 and 4 travel to seats. Where students would typically huddle towards instructor for small-scale demonstrations, recommend use of video broadcasting equipment to a television or projector within room.



#### Use Description

Course	TTED 4060 Teaching Electronics 1
Program	Technology Teacher Education Diploma
Number of students per lab session	11 max (1 lab session/week, most labs online)
Description of Equipment used	11 workbenches equipped with power supply, soldering iron,
	SW9-107J (on occasion) • Laser cutter
Why do students need to use this space? What's special that cannot be done at home?	Students require access to specialized equipment.

Course	TTED 3060 Electronic Foundations (Oct 13 – Dec 4)
Program	Technology Teacher Education Diploma
Number of students per lab session	11 max (1 lab session/week, students will attend every second week)
Description of Equipment used	
Why do students need to use this	Students require access to specialized equipment.
space? What's special that cannot	
be done at home?	

#### Barriers

Location	Quantity	Size (WxH inches)	Mounting (Free standing, table top, etc.)	Opaque/Clear	Comment
See plan					

#### PPE and Sanitizing

Item	Quantity	Consumption rate	Location	Comment
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Pump bottle hand	16	At each	
sanitizer		workbench and at	
		each stationary	
		table where there	
		may be shared	
		tools	
Disinfecting wipes	15	At each	Students to wipe
	Box 100	workstation	down workspace
		At instructor table	and common touch
			points on equipment
			at start and end of
			class



#### SW9-233 - Classroom

Room 233 will be used for the storage of TTED student coveralls, safety footwear and student-owned toolboxes. Students will be sent up to 233 one at a time. The "A" and "B" represents our two groups within each year. When group A is on campus, group B is at home and vice versa. So for any given day, there will only be one person accessing the items on a given table. Each table will be labelled with the student's name so they always place their items on the same table. This is being done for the students as they will no longer be able to access the lockers. Common touch points will be disinfected at the end of each day via Facilities work request **1450791**. First year students will enter and exit room 233 via the west entrance while second year students will use the east door.

