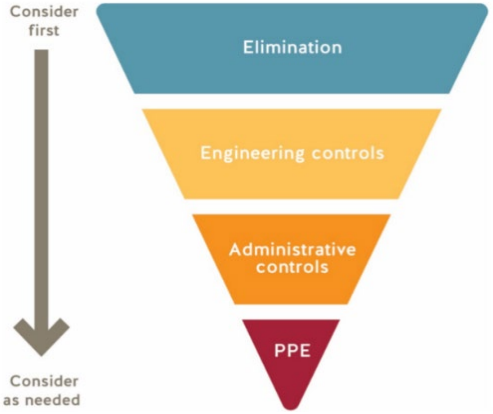
BCIT COVID-19 SAFETY PLAN
ACADEMIC SPACES

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 BCIT COVID-19 Go-Forward Plan 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:**	**May 31, 2021**
# of students:	65	**# of employees:**	**10**
Completed by:	Name Brent Dunn	Position Associate Dean	Date Sept 2, 2020 (initial) Sept 28, 2020 (amendment 1) Oct 30, 2020 (amendment 2) Dec 2, 2020 (amendment 3)



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.

Campus/ Building	Room Number Floor Plans found here	Type of Space Include washrooms and breakout rooms	Capacity Current capacity due to COVID-19
Burnaby SW9	SW9-101A	Metal storage	2 – 1 staff, 1 student
	SW9-101B	Finishing	3 – 1 staff, 2 students
	SW9-102	Automotive lab	13 – 12 students, 1 instructor
	SW9-102A	Metal/Auto Toolroom	2 – 1 staff, 1 student
	SW9-102B	Foundry	7 – 5 students, 1 instructor, 1 technician
	SW9-103	Woodworking shop	14 – 12 students, 1 instructor, 1 technician
	SW9-103B	Woodworking toolroom	2 – 1 staff, 1 student
	SW9-103C	Woodworking glue-up room, project storage	3 – 1 staff, 2 students
	SW9-103D	CNC Router	3 – 1 staff, 2 students

	SW9-106	Machine Shop	14 – 12 students, 1 instructor, 1 technician but room capacity higher if all equipment in use
	SW9-106B	Grinding Room	2 – 1 staff, 1 student
	SW9-106E	Welding lab	12 – 11 students, 1 instructor
	SW9-107	Plastics lab (main portion only, not including sub-rooms)	8 – 7 students, 1 instructor
	SW9-107A	Plastics lab classroom & material testing	3 – 2 students, 1 instructor
	SW9-107C	Metrology lab	7 – 6 students, 1 instructor
	SW9-107D	Composites lab	4 – 3 students, 1 instructor
	SW9-107F	Powder coating room	1
	SW9-107H	Fabrication lab (waterjet, plastics sheet fab)	4 – 3 students, 1 instructor
	SW9-107J	Laser cutter and 3D printers	2 – 1 staff, 1 student
	SW9-117	Timetabled classroom for break room	13 – 12 students, 1 instructor
	SW9-123	Electronics lab	12 – 11 students, 1 instructor
	SW9-233	Classroom for personal effects storage	Will be used by 1 student at a time
	SW9-127	Timetabled Classroom for break room	7 students

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
ACADEMIC SPACES

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 returntocampus@bcit.ca 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 Risk Assessment Controls Guidance and Hierarchy of Controls. For assistance email ssemohs@bcit.ca.

#	Control Measure	Yes	No	NA	Details (as per Directions)
ELIMINATION					
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 BCIT COVID-19 Go-Forward Plan, 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.	☒	☐	☐	*Exception allowed as per BCIT COVID-19 Go-Forward Plan, 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.	☒	☐	☐	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.

#	Control Measure	Yes	No	NA	Details (as per Directions)
4.	Work has been scheduled to minimize numbers of individuals on campus at one time.	☒	☐	☐	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.	☒	☐	☐	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.
7.	Water fountains are put out of service, and only touchless water bottle filling station available.	☒	☐	☐	One fountain in hallway (common space). The fountain has been taped off.
8.	Mobile fans have been removed or put out of service.	☐	☐	☒	No fans
7.	Washrooms have been identified.	☒	☐	☐	There are no washrooms within the lab spaces - all washrooms are in common spaces.
8.	Break area(s) for student use have been identified.	☒	☐	☐	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 available. 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. In addition, two nearby classrooms have been designated as break rooms - SW9-117 for Technology Teacher Education students and SW9-127 for Manufacturing students. A work request will be submitted for cleaning once the timetable is available for the Winter term. Students are also aware of available spaces in the Great Hall and in the library.
9.	Break areas for employee use have been identified.	☒	☐	☐	Faculty will take breaks in their offices. These areas are covered under an Administrative Safety Plan GFP#75.

#	Control Measure	Yes	No	NA	Details (as per Directions)
10.	Other:	☐	☐	☒	
ENGINEERING CONTROL MEASURES					
11.	Barriers are implemented to separate work areas or walk ways, when physical distancing not practical.	☒	☐	☐	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:	☐	☐	☒	
SIGNAGE (ADMINISTRATIVE) *Signage is available @ BCIT online Inventory. Guidelines for posting signs are available on ShareSpace.*					
13.	Posted: Physical distancing (2 m) sign(s) Item 1A	☒	☐	☐	Posted
14.	Posted: Hand washing sign(s) Item 29B	☒	☐	☐	Posted
15.	Posted: Health screen sign(s) Item 3C	☒	☐	☐	Posted
16.	Posted: Hand washing sink location sign(s) Item 14A	☒	☐	☐	Where handwashing sinks are available. Posted
17.	Posted: Hand sanitizing station location sign(s) Item 13A	☒	☐	☐	Posted
18.	Posted: Protect yourself sign(s) Item 21A	☒	☐	☐	Posted
19.	Posted: Occupancy limit of this room sign(s) Item 37A	☒	☐	☐	Posted
20.	Posted: Other signs	☒	☐	☐	Non-medical, BCIT-supplied masks and eye protection are required when students and/or staff must work within 2m. This is typically for short periods of time when staff are assisting students or demonstrating technique. A custom sign will be created and posted at the entrance to the lab to remind students and staff of the requirement.
ORIENTATION AND TRAINING (ADMINISTRATIVE)					
21.	Routine safety discussions held to review control measures and safety protocols.	☒	☐	☐	
22.	All students have completed the online COVID-19 Pandemic On-Campus Guidelines training.	☒	☐	☐	*How will compliance be checked:* 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.	☒	☐	☐	*Procedure for orientation found here.* *Student COVID-19 Orientation Checklist found here.*

#	Control Measure	Yes	No	NA	Details (as per Directions)
24.	All employees have completed the online BCIT Pandemic Exposure Control Plan Training.	☒	☐	☐	
25.	All employees have completed the online New Employee Orientation module.	☒	☐	☐	*New and Returning Employee Orientation Checklist found here.* *Each employee to save the checklist to their online New Employee Orientation course*
26.	Other:	☐	☐	☒	
RULES AND GUIDELINES (ADMINISTRATIVE)					
27.	All unnecessary and self-serve items have been removed from the spaces. *e.g., pens, paper, etc.*	☒	☐	☐	
28.	Doors that students are to use to enter and exit have been clearly identified.	☒	☐	☐	*Signs or arrows on the floor*
29.	Handouts, papers, and items are not physically provided to students.	☒	☐	☐	
30.	Students have dedicated tools/equipment, e.g., items are not shared between students.	☒	☐	☐	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.*
33.	Single-use (disposable) products are used where feasible.	☒	☐	☐	*Gloves will be single use. None of the equipment is single use/disposable.*
34.	Measures are in place to accommodate student sick at home.	☒	☐	☐	*Accommodation plan: Students who miss a lab will be given an alternate assignment or allowed to make up the lab at a later date.*
35.	Procedures in place to screen students on a daily basis.	☒	☐	☐	*The health screen poster is available for reference and is posted on building doors. Students and employees are expected to self assess daily, and the BCCDC self-assessment tool can be used to support this.*
36.	There is a procedure in place if a student or employee becomes ill on campus.	☒	☐	☐	*Refer to the COVID-19 Pandemic Scenario Playbook 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 COVID-19 Pandemic Scenario Playbook for more information. Confirm if the person is aware of self-isolation requirements and protocols.*

#	Control Measure	Yes	No	NA	Details (as per Directions)
38.	Provisions made for students to maintain same lab/class cohort throughout the Term.	☒	☐	☐	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 typically stay with the same smaller subset for the term.
39.	Other:	☐	☐	☒	
PERSONAL PROTECTIVE EQUIPMENT (PPE). **Refer to the PPE Flowchart to determine 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.	☒	☐	☐	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.	Appropriate PPE for COVID-19 is available to be provided to students and employees. Supply requests emailed to ppe@bcit.ca.	☒	☐	☐	*Based on circumstances allowed for in the BCIT COVID-19 Go-Forward Plan, 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. 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. While most activities will not require students and/or staff to be in close proximity without a barrier, some activities such as instructors assisting students with certain techniques may require students and/or instructors to be in close proximity. In such cases, all parties will be required to wear BCIT-supplied disposable masks and eye protection.
43.	PPE safe donning, doffing, disposal, and disinfecting instructional materials are available for students and employees.	☒	☐	☐	*Post applicable signs in a visible location if ppe required.* *Use the Student Orientation checklist to assist orientation/training by instructors.*

#	Control Measure	Yes	No	NA	Details (as per Directions)
					Use the Employee Orientation checklist 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:	☐	☐	☒	
CLEANING					
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 here. 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	☒	☐	☐	
48.	Handwashing station(s), stocked, easily accessed, and have been identified to students and employees.	☒	☐	☐	*Sink Location:__SW9-123, SW9-102, SW9-103, SW9-106, SW9-107* *Stocked with soap Y ☒ N ☐ paper towel Y ☒ N ☐*
49.	Hand sanitizing station(s), stocked, and have been identified to students and employees.	☒	☐	☐	***ABHS** (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 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 ☒ N ☐* *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.

#	Control Measure	Yes	No	NA	Details (as per Directions)
50.	All Safety Data Sheets (SDS) and cleaning procedures used are found here.	☒	☐	☐	*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 and equipment. The spaces under this plan have a large variety of small and large shared tools and equipment. In some cases, students will be required to sanitize before and after using the equipment. In all other cases, the students will be required to wipe down the equipment after use using provided sanitizing supplies.
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 cleaners (MANU students using SW9-106). Facilities requests will be submitted for cleaning once timetables are available.
55.	Other:	☐	☐	☐	
AUDIT AND CONTINUOUS IMPROVEMENT					
56.	There is a plan to conduct regular inspections of all control measures and safety protocols to ensure they are in place.	☒	☐	☐	*Ensure this COVID-19 Safety Plan is posted. Who will conduct these inspections and how often?* Faculty will monitor on a daily basis. Program head or Associate Dean will inspect on a monthly basis.
57.	Audits of inspections are planned to ensure that control measures continue to be effective.	☒	☐	☐	*Who conduct the audits and how often?* OH&S will audit on a term basis.

APPROVAL

All COVID-19 risk control measures for this campus activity are in place.

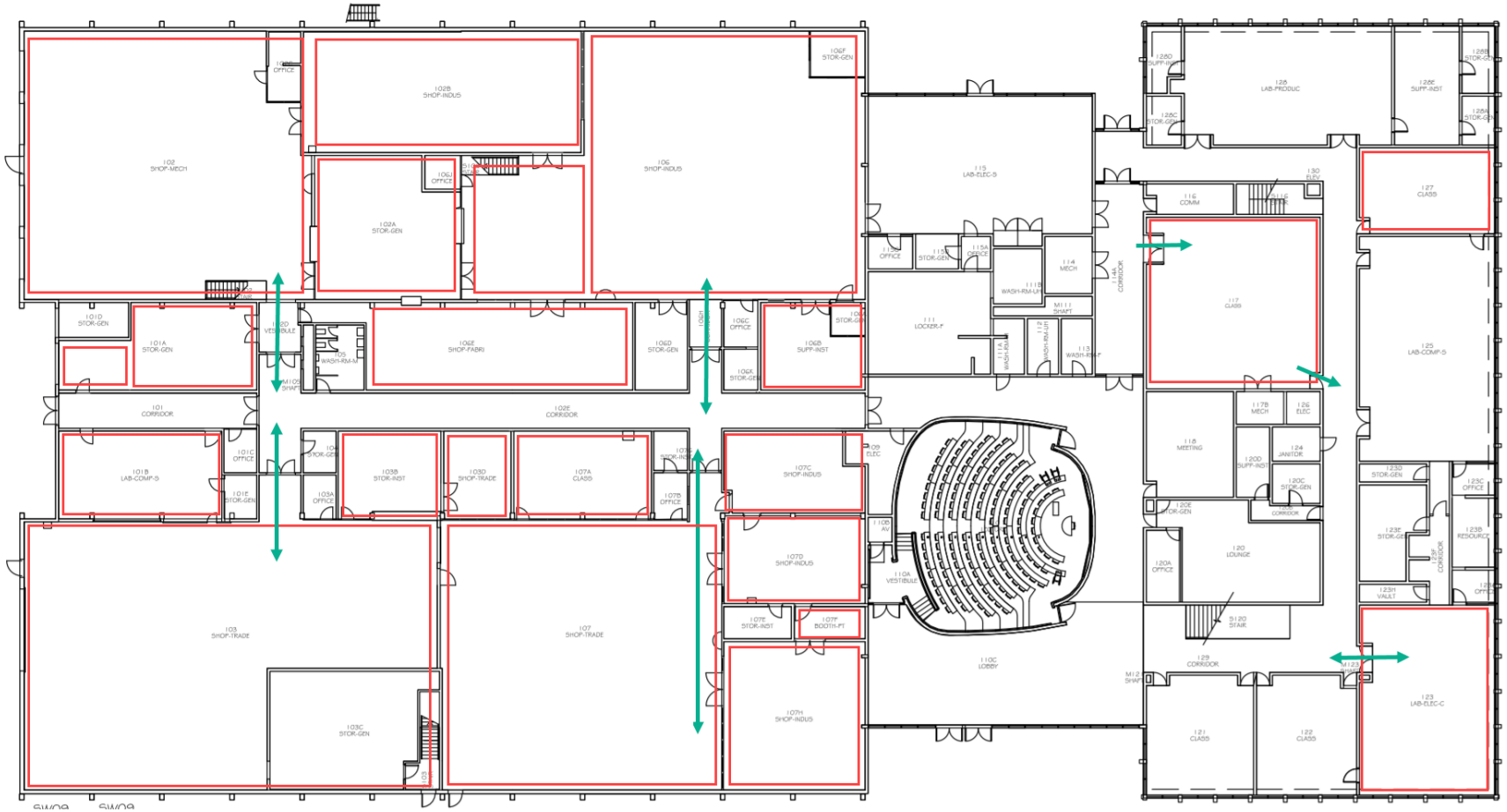
COVID-19 SAFETY PLAN
ACADEMIC SPACES

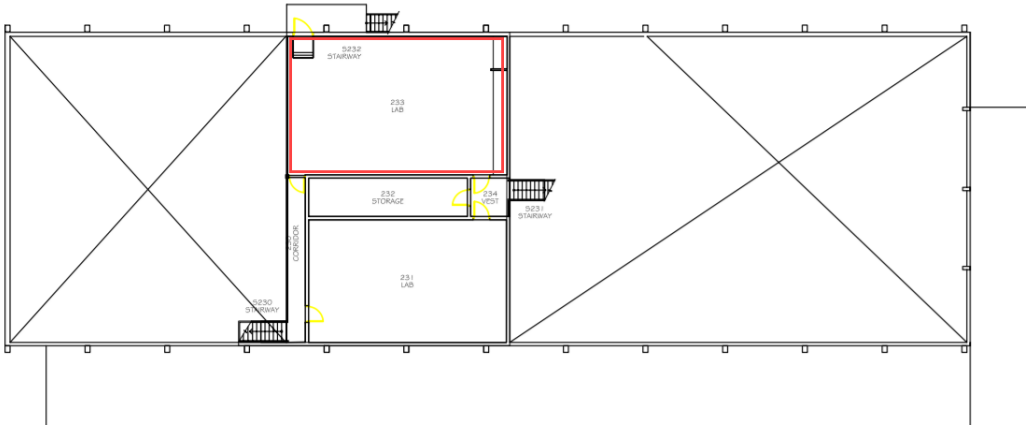
Manager	Name  Brent Dunn	Position Associate Dean	Date Dec 2, 2020
EOC	Name *Glen Magel*	Position EOC Director	Date December 2, 2020

DOCUMENT HISTORY

Nov 26, 2020	Amendment 3 Added plan for sub-rooms off of 107 for student projects and MANU3410 Added small sub-rooms off 101, 103, 106 to plan Included additional equipment (CNC lathe) in SW9-106 layout Updated layout of barriers in SW9-106 to match actual Updated welding area layout to match actual Updated course list for each room to Winter 2021	Brent Dunn, Associate Dean
Oct 30, 2020	Amendment 2 Updated end date to May 31, 2021 Updated toolroom capacity from 0 to 2 (1 student max, 1 staff as necessary) #42 – Added statement on PPE requirement when students and/or staff must be in close proximity. Added new activity for SW9-102 (Automotive Shop) for TTED4075 that starts in early November. Added new layout for toolroom (SW9-102A) to support student self-serve.	Brent Dunn, Associate Dean
Sept 28, 2020	Amendment 1 Added room SW9-127 classroom for use as a break room for students, resubmitted for approval	Brent Dunn, Associate Dean
Sept 9, 2020	Initial submission	Brent Dunn, Associate Dean

Spaces Covered by this Plan in Buildings SW09

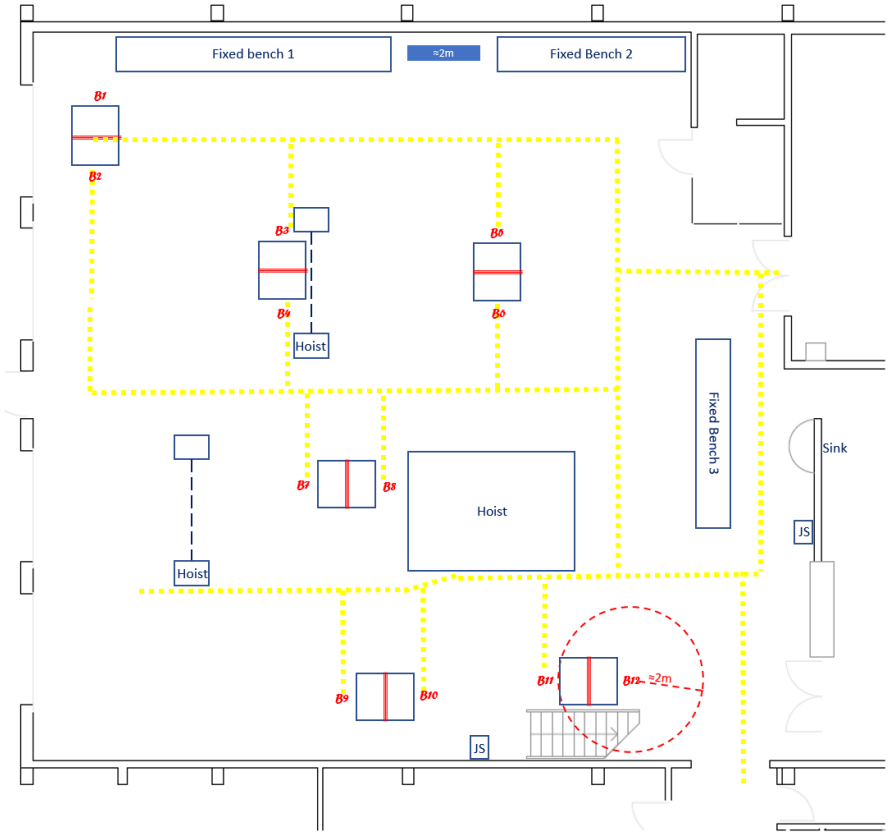



5232
STAIRWAY
233
LAB
232
STORAGE
234
VEST
5231
STAIRWAY
231
LAB
5230
STAIRWAY

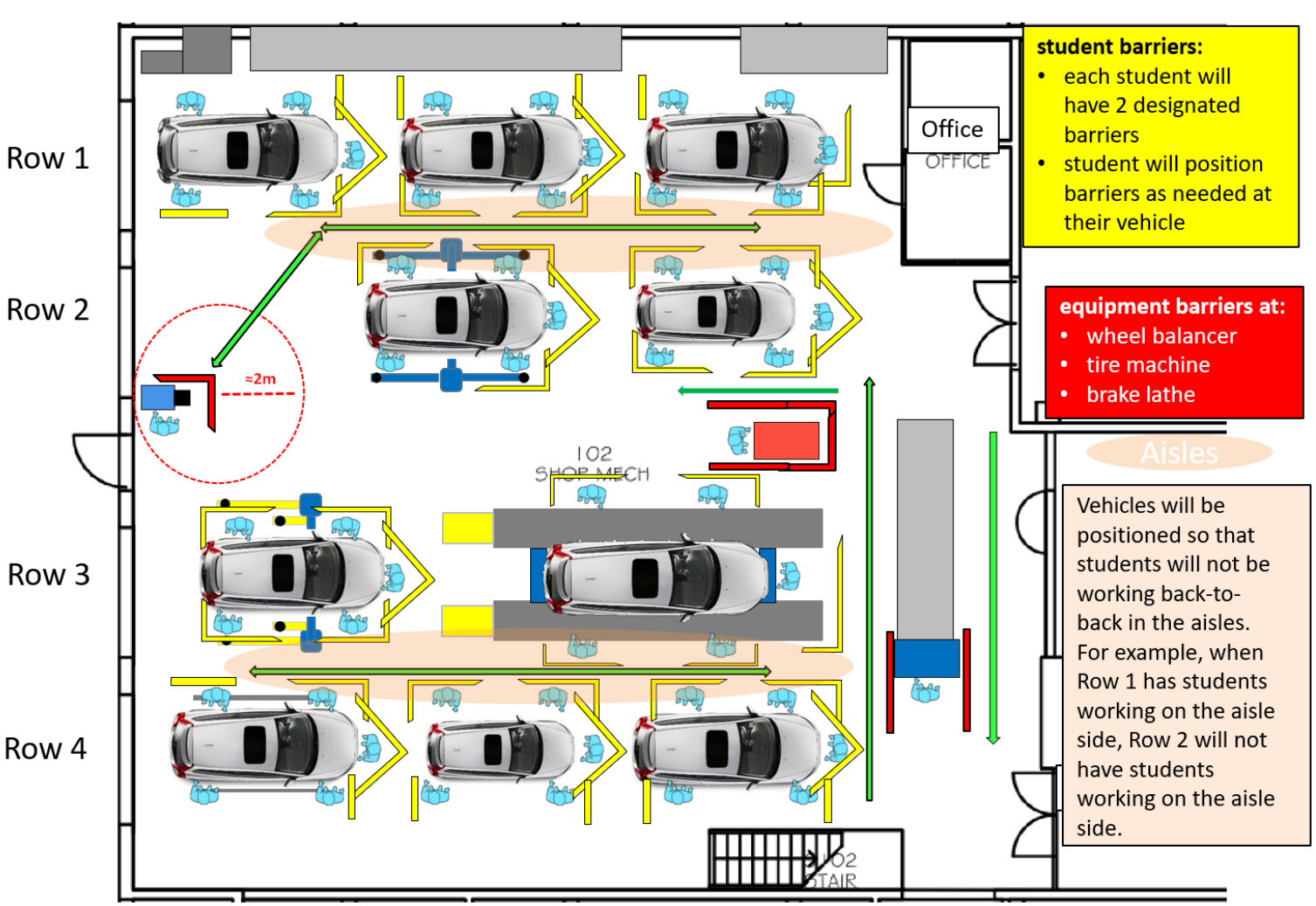
SW09-102 Automotive Shop

SW09-102 is used for two different activities; benchwork to support various courses plus open shop space for automotive repair instruction.

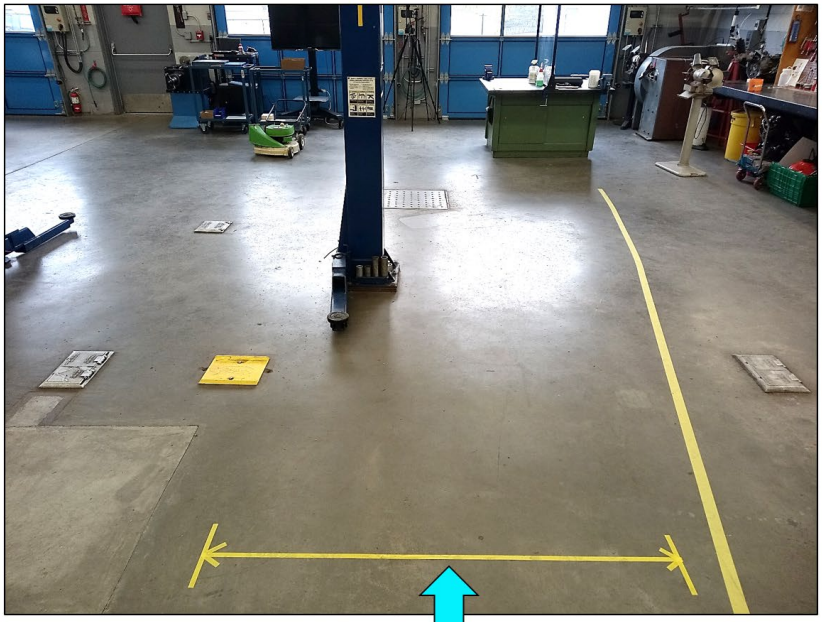
For benchwork, SW09-102 will accommodate 12 physically-distanced 4'x5' bench stations, with 4' wide barriers ( ) installed in middle of benches. Benches are varying sizes; if barriers are identical heights, consideration will be made in assigning tall students to high benches to ensure that barriers 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.



For automotive repair, the benches will be removed to open the space for up to 10 vehicles for automotive instruction. Equipment used includes the wheel balancer, tire machine, brake lathe, automotive lifts, jacks, and jackstands. Students complete self-directed projects and will use a variety of hand-held equipment including diagnostic testers and hand tools.



The following image shows the spacing between vehicles. Vehicles will be strategically arranged to avoid students working in close proximity. Barriers will be used by students.



- This yellow arrow represents the 5’ of space available in the aisles between vehicles.
- This will allow for 3’ of passage and 2’ of work space.

Use Description SW9-102

Course	TTED 4022 Metal Products Manufacturing
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 5050 Teaching Automotive Systems
Program	Technology Teacher Education Diploma
Number of students per lab session	10 max (1 lab session/week, students will attend every second week)
Description of Equipment used	Hoists, jacks, jackstands, wheel balancer, tire installer, brake lathe, parts washer, miscellaneous hand and diagnostic equipment
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 5070 Teaching and Learning Support Materials
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	Students create learning materials based on an area of their choice so may be using equipment in any of the labs in SW9
Why do students need to use this space? What's special that cannot be done at home?	Students require access to specialized, expensive equipment.

PPE and Sanitizing

Item	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	
Disposable Face Masks	60	10/week	Near entrance	When students and/or staff need to work in close proximity
Disinfecting wipes	30 containers	2/term	At each workstation At instructor table	1 at each student and fixed bench
Spray Nine disinfectant spray	Already stocked by progam			
Nitrile Gloves	Already stocked by program			
Disinfecting of common touchpoints.	Facilities work request will have touch points such as door handles, light switches, sinks, faucets, etc. disinfected at the end of each work day.			

SW9-103 Woodworking Shop

Notes: This woodworking shop features 11 physically distanced workstations, and access to various pieces of equipment. Most of the equipment 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.

Room 103D contains three CNC routers that will be used in coursework and project work. With barriers, two of the CNC routers can be used at the same time.

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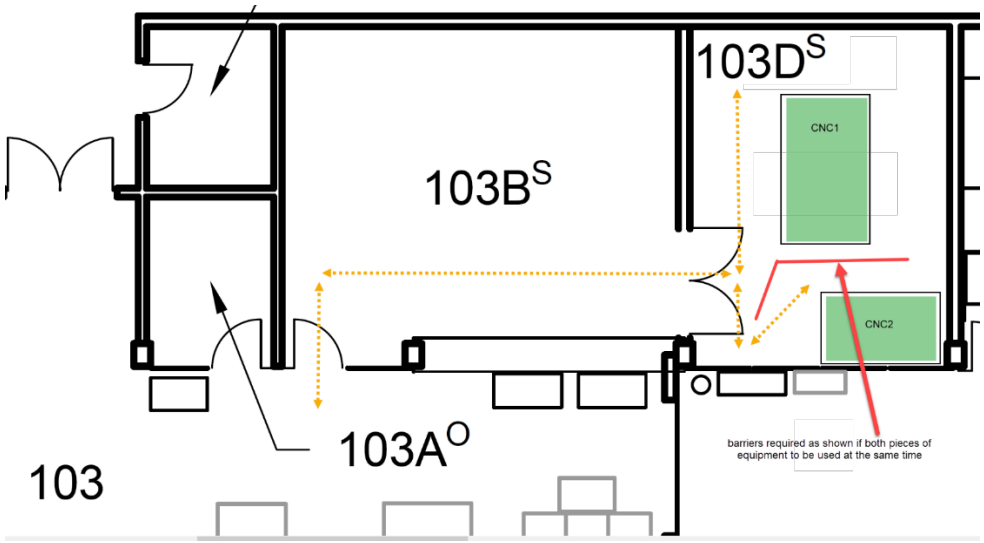

103D^S
CNC1
103B^S
CNC2
103A^O
103
barriers required as shown if both pieces of equipment to be used at the same time

Use Description SW09-103

Course	TTED 4033 Wood Products 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 used	Workbenches Stationary and hand-held equipment and tools
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 5030 Teaching Wood 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 used	Workbenches Stationary and hand-held equipment and tools
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 5070 Teaching and Learning Support Materials
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	Students create learning materials based on an area of their choice so may be using equipment in any of the labs in SW9
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 5000 Teaching CAD/CAM

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	Occasional access to CNC mills in SW9-106 and CNC routers in SW9-103D
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

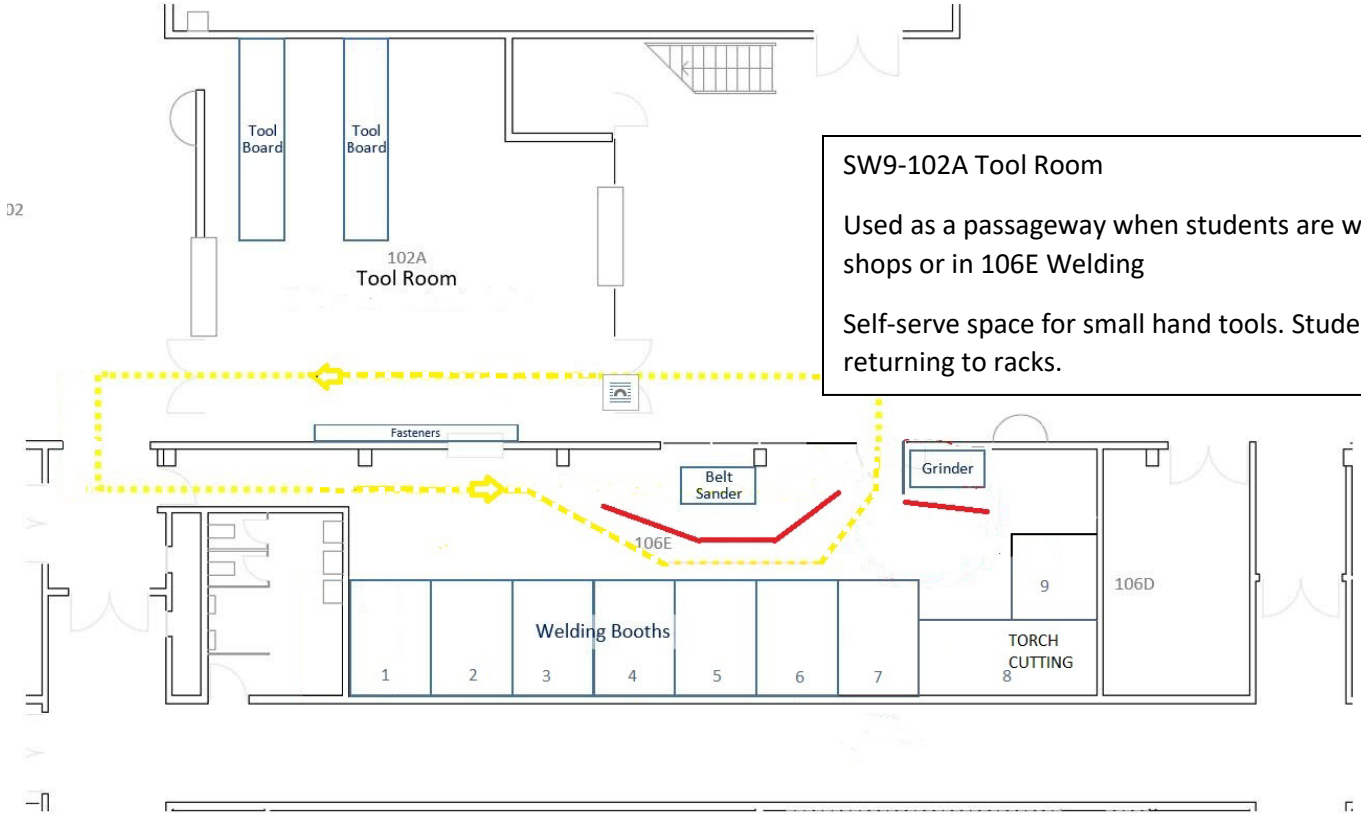
Item	Quantity	Consumption rate	Location	Comment
Pump bottle hand sanitizer	16		At each workbench and at each stationary table where there may be shared tools	
Disinfecting wipes	15 Box 100		At each workstation At instructor table	

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

Notes: The student capacity for SW9-106E is 11 students, based on the number of welding booths, screened grinder area, and screened belt-sander work area. Movement in the welding shop passageway 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.

Welding Helmets and Faceshields: Students make exclusive use of items that have been cleaned and flagged by a shop technician.

Welding Gloves and Jackets: Students make exclusive use of items that have been removed from circulation for a minimum of 5 days by a shop technician.

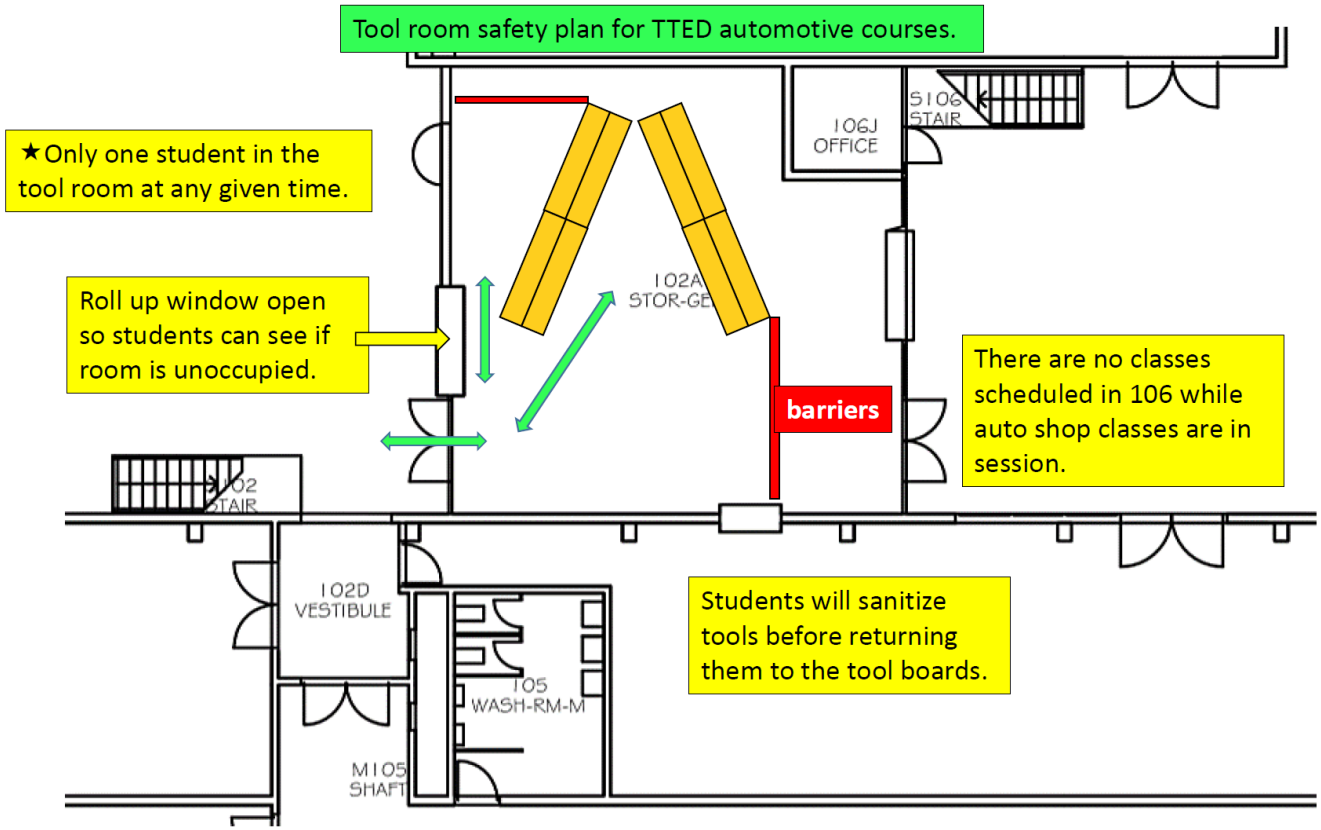


SW9-102A Tool Room

Used as a passageway when students are working in both 102 and 106 shops or in 106E Welding

Self-serve space for small hand tools. Students will clean tools before returning to racks.

When automotive classes are running, students will access tools from the toolroom and sanitize them before returning them to the tool racks. One student will be permitted in the room at a time.



Machine Shop & CNC: SW09-106

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 and the CNC lathe, one student and one instructor may operate each machine, for a total of three students plus three instructors.

While the tool room CNC mill is in use, other foot traffic in that isle will be routed to avoid space conflicts with the mill and operator(s).

For the manual 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. The CNC tool room mill will not be used at the same times as the manual milling area.

When several pieces of equipment need to be used but the machines are too close for individual barriers, the equipment is enclosed within a common barrier zone. Access to the zone is limited to one student and an instructor with required PPE.

When any activities require instructors and/or students to be in close proximity such as when an instructor is providing assistance, and barriers are not in place, all parties must wear appropriate PPE (eye protection and BCIT-provided, disposal, non-medical face mask).

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.

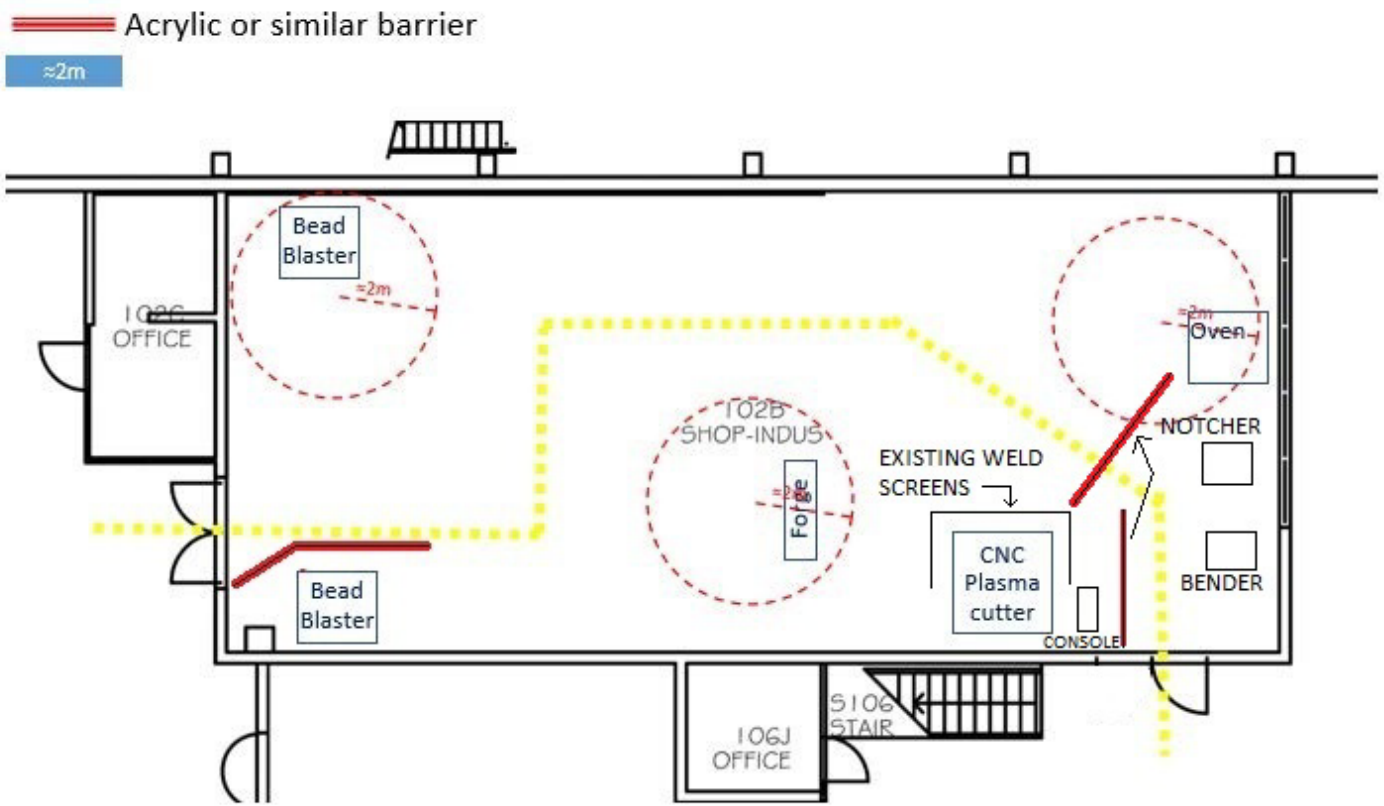

Equipment in use
Equipment not used
Major pathways
Typical barrier position
Sheet Metal (SM)
Drill Presses
Turning (Lathes)
1+Instructor Max
CNC Lathe
102B
106J
SM
SM
SM
SM
SM
Turning (Lathes)
106
Milling
CNC Mills
115
TOOL RM
CNC MILL
Saw
EYEWASH
STATION
102A
1 MAX
106E
106D
106H
106C
106B
106A
LEGEND
EQUIPMENT
(BENCH/DESK/COUNTER TOP) WORK SURFACE
0
2m
4m
6m
6'-7"
13'-2"
19'-8"

BCIT

Foundry: SW09- 102B

Notes/Changes needed in description:

- 7 pieces of equipment (Oven, CNC plasma cutter, forge, 2 bead blasters, notcher and bender)
- Notcher and bender cannot be used simultaneously nor at the same time as the plasma cutter. When using the notcher or bender, the door cannot be used as a passageway for others wishing to enter or leave room. The barrier protecting the plasma cutter console is temporarily moved to a new location and a sign directing others to use doors from SW9-102 main shop.



Use Description SW9-106

Course	TTED 4022 Metal Products Manufacturing
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 SW9-106 all equipment SW9-106E welding SW9-102B forge, casting
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 5070 Teaching and Learning Support Materials
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	Students create learning materials based on an area of their choice so may be using equipment in any of the labs in SW9
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 5000 Teaching CAD/CAM
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	Occasional access to CNC mills in SW9-106 and CNC routers in SW9-103D

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

Course	MANU 4420 Material Joining Processes
Program	Mechanical Engineering – Manufacturing Option
Number of students	21, split into smaller groups of 7
Description of Equipment used	Welders in SW9-106E May move some welders to other areas of shop
Why do students need to use this space? What's special that cannot be done at home?	Specialized, one-off equipment

Course	MANU 4415 Production Planning and CNC
Program	Mechanical Engineering – Manufacturing Option
Number of students	21, split into smaller groups of 7
Description of Equipment used	SW9-106 various stationary equipment including CNC lathe
Why do students need to use this space? What's special that cannot be done at home?	Specialized, one-off equipment

Course	MANU4490 Manufacturing Projects
Program	Mechanical Engineering – Manufacturing Option
Number of students	21, split into smaller groups and/or spread across several shops
Description of Equipment used	Students require access to a variety of equipment for their projects. This may include equipment in SW9-106, SW9-102, SW9-107
Why do students need to use this space? What's special that cannot be done at home?	Specialized, one-off equipment

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, 107C, 107D MANU3410, MANU4490, TTED 4044, TTED5070

This large shop has several smaller rooms. The space is mainly used by the Manufacturing option of Mechanical Engineering. On occasion, students from the TTED program may use equipment in rooms SW9-107D, F, H, J.

Notes: Lab 107C setting can accommodate 6 physically distanced student stations, provided barriers are installed in noted locations. However, if additional space is required to either further enhance physical distancing, or to enable additional stations to be utilized, a space in the main shop floor can accommodate these needs. This additional space could enable an increased capacity of 9 students, provide that other activities in the shop area are either limited or highly coordinated with 107C's activity, to prevent potential encroachments on physical distancing in these spaces.

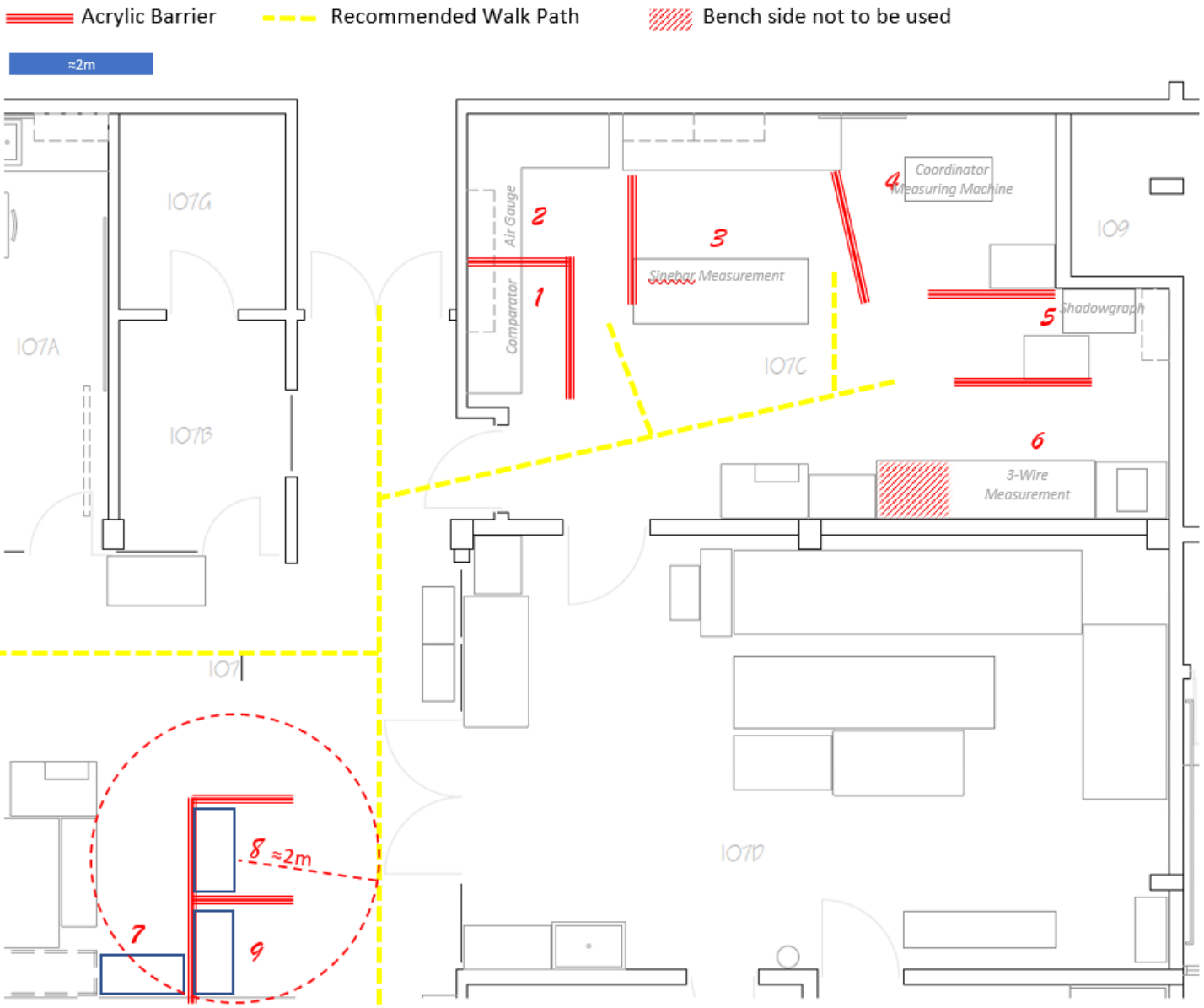
SW9-107A

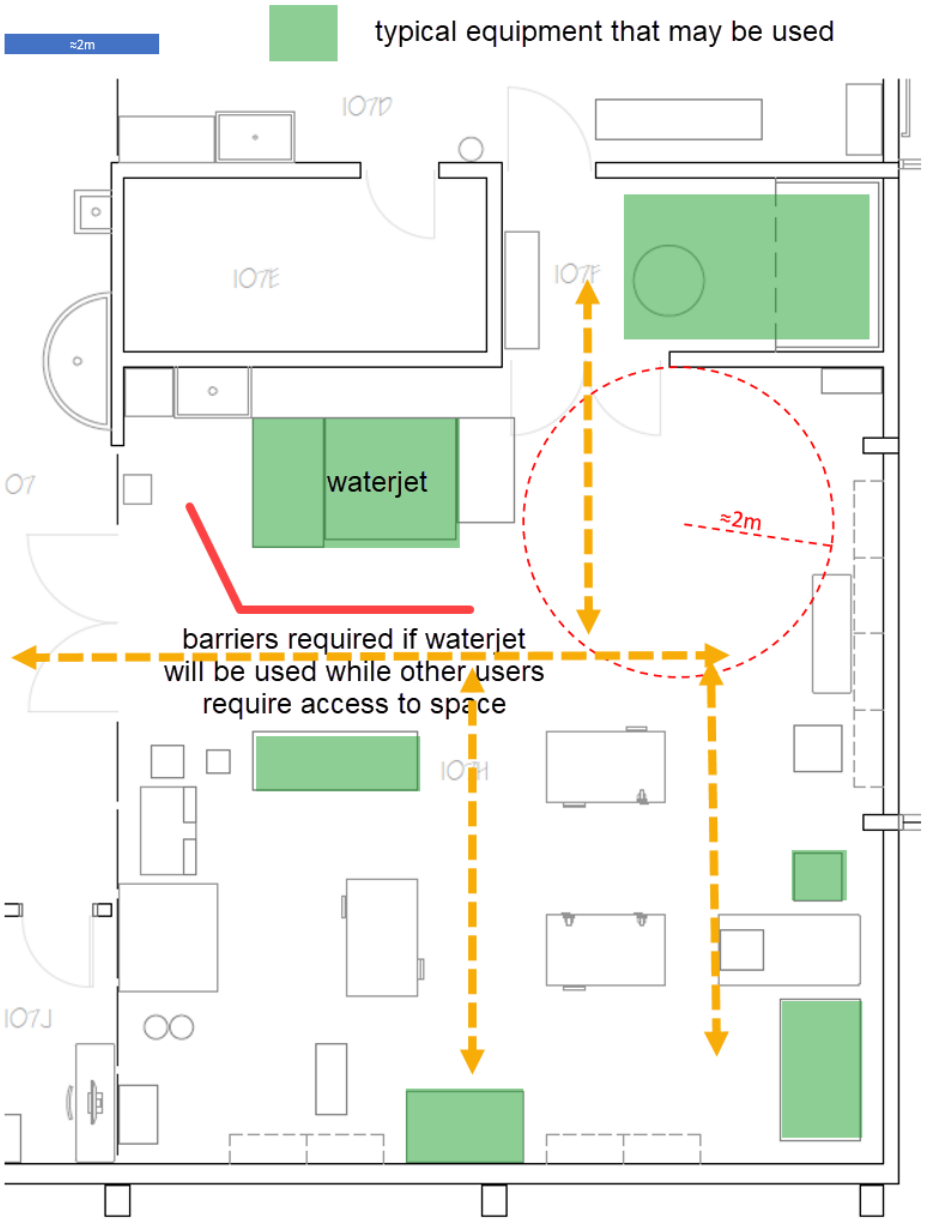
This classroom and testing room may be used on occasion to support student projects. Capacity is 2.

SW9-107F,H

These rooms contain miscellaneous, specialized equipment that will be used by students for one-off project work. Typically, there will be one student and one faculty in the room, however, the equipment is spaced such that up to 4 students may be working in the space at a time. Barriers are required as shown if the waterjet will be used while other users require egress through the main doors to access to the other equipment in the space.

COVID-19 SAFETY PLAN
ACADEMIC SPACES




≈2m
typical equipment that may be used
waterjet
≈2m
barriers required if waterjet
will be used while other users
require access to space

Use Description

Course	MANU3410 Metrology
Program	Mechanical Engineering – Manufacturing Option
Number of students	21, split into 3 groups of 7 max in the space at a time
Description of Equipment used	Assortment if metrology fixed equipment and hand measuring tools
Why do students need to use this space? What's special that cannot be done at home?	Specialized, one-off equipment Expensive, sensitive equipment and hand tools

Course	MANU4490 Manufacturing Projects
Program	Mechanical Engineering – Manufacturing Option
Number of students	21, split into smaller groups and/or spread across several shops
Description of Equipment used	Students require access to a variety of equipment for their projects. This may include equipment in SW9-107, 107A, 107C, 107D, 107F, 107H, 107J
Why do students need to use this space? What's special that cannot be done at home?	Specialized, one-off equipment Expensive, sensitive equipment and hand tools

Course	Various courses in TTED Program
Program	Technology Teacher Education
Number of students	11, spread across several shops
Description of Equipment used	Students require access to a variety of equipment for their projects. This may include equipment in SW9-107, 107A, 107C, 107D, 107F, 107H, 107J
Why do students need to use this space? What's special that cannot be done at home?	Specialized, one-off equipment Expensive, sensitive equipment and hand tools

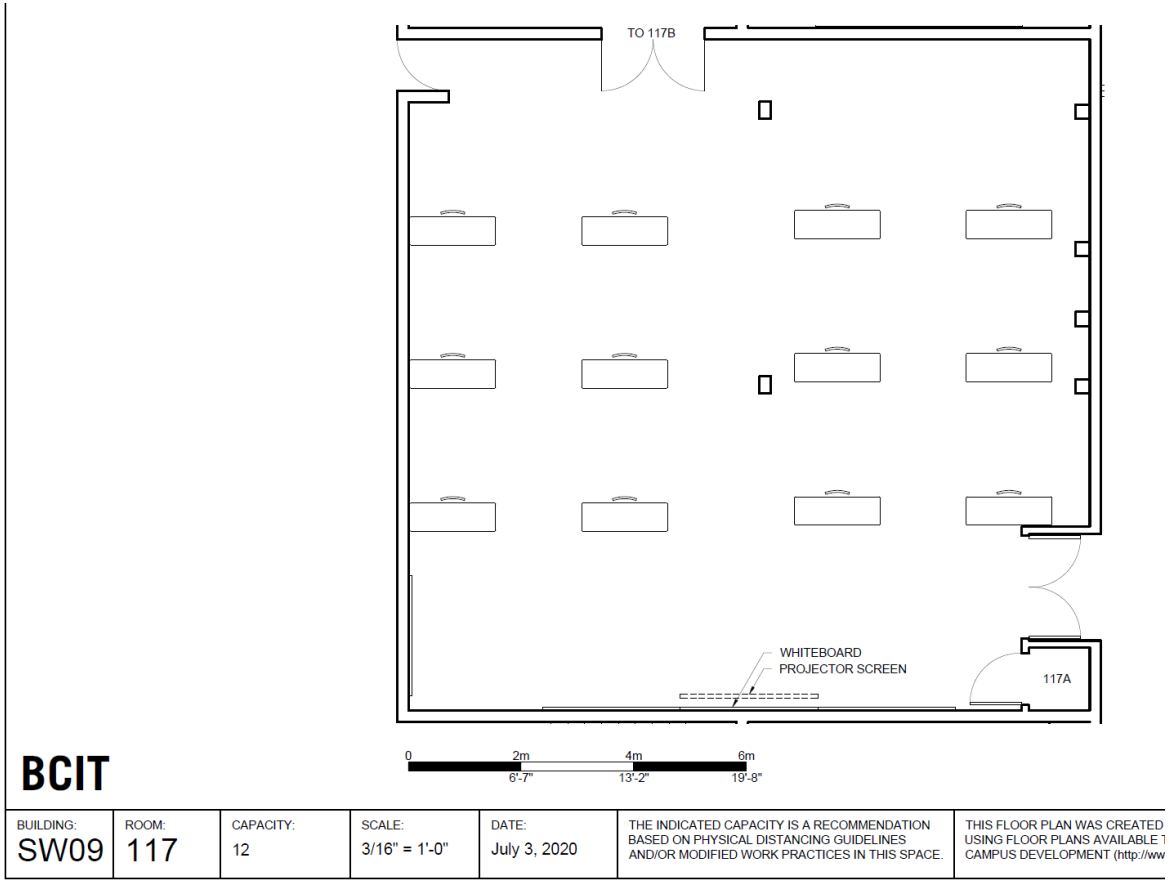
Barriers

As shown on plan. Note that some equipment and activities may be repositioned, however, the basic principles of maintaining 2m distancing and using barriers when 2m distancing cannot be maintained will be applied.

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	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

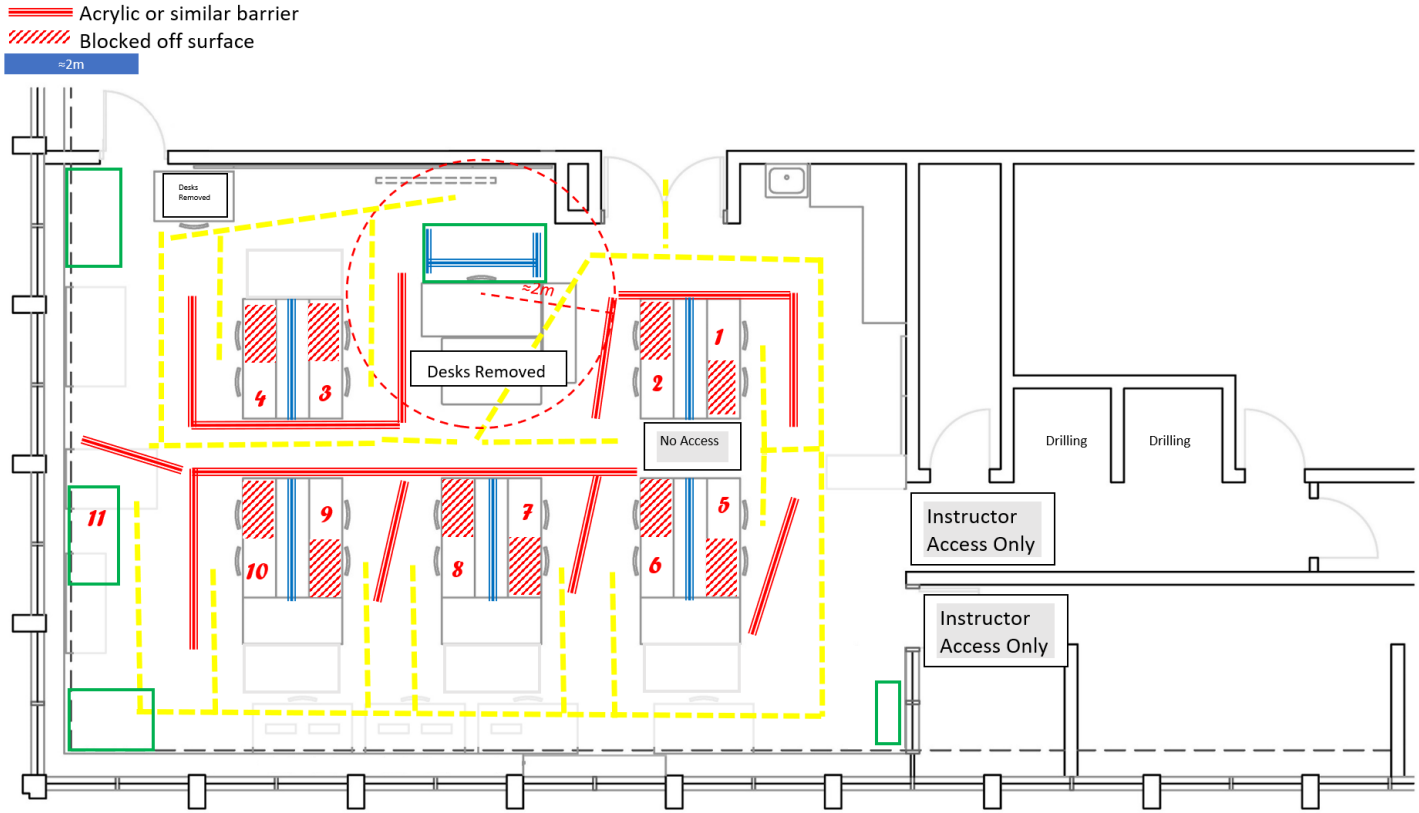
Why do students need to use this space? What's special that cannot be done at home?	The space will be used as a lunch and break room for TTED students who are on campus for hands-on labs.

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 4010 Microcontroller Programming and Integration
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, electronic test equipment
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 4035 Computer Control 1 for TTED
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 equipped with power supply, soldering iron, electronic test equipment Circuit board making equipment
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 4044 Structures and Strength of Materials
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 equipped with power supply, soldering iron, electronic test equipment
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 5060 Teaching Electronics 2
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	Benches, may also use SW9-107J (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.

Barriers

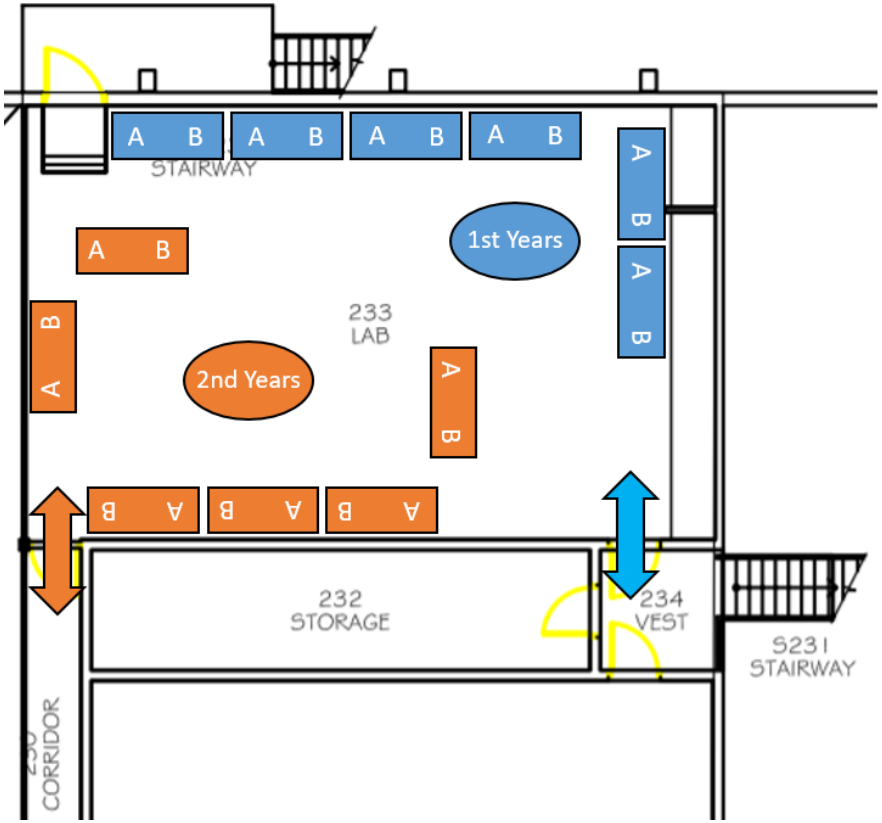
See plan

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 Box 100		At each workstation At instructor table	Students to wipe down workspace and common touch points on equipment at start and end of class

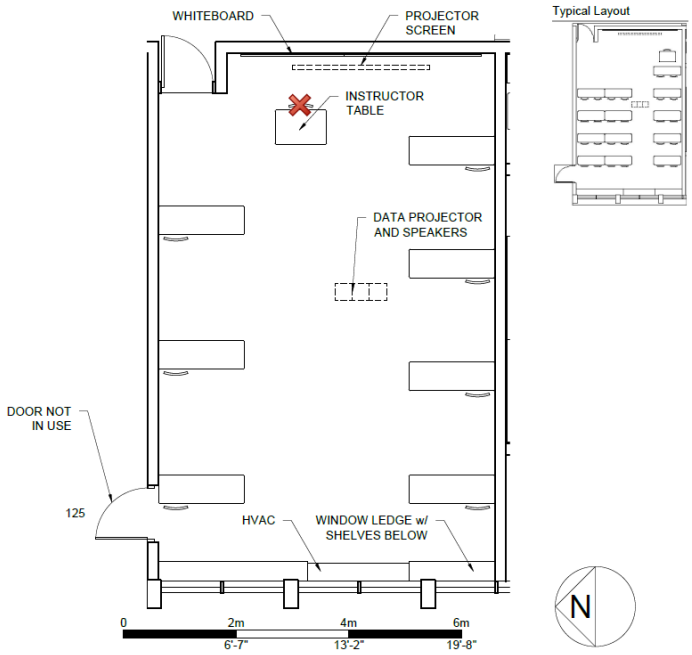
SW9-233 - Classroom

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. First year students will enter and exit room 233 via the west entrance while second year students will use the east door.



SW9-127 Classroom

This classroom, with a capacity of 7, will be used as a break room for students in Mechanical Engineering who are required to be on campus but have a mixture of on-campus and online activities in the same day. Students will use the space for participating in online classes and for a lunch room. Although SW9-117 is also configured and approved for a similar activity, it is being used primarily by the Technology Teacher Education program whose students are on campus most days.



Building	Room	Typical Capacity	Physical Distance Capacity
SW09	127	26	7

Capacity does not include instructor.
Please return the room to this standard configuration
and leave the space clean and orderly for the next user.

Tables	Chairs	Area Sq. feet	Area Sq. meters	Scale	Date
8	8	593	55	3/16" = 1'-0"	August 21, 2020

Use Description

Course	Mechanical Engineering; Design, Manufacturing, and Systems Options ; Mechatronics and Robotics
Program	Mechanical Engineering Technology Diploma; Mechatronics and Robotics Technology Diploma
Number of students	7 max
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 break room and a lunch room for students who have a mixture of on-campus labs and on-line classes on the same day with not enough time to transit in between. The department will schedule the space to fit student schedules.

PPE and Sanitizing

Item	**Quantity**	**Location**	**Comment**
Pump bottle hand sanitizer	2	At entrance door	Used upon entry and prior to exit of room
Disinfecting Wipes	7	At each table, for wiping down table and chair	Will also be cleaned at end of day by custodial staff