Return to Campus Plan

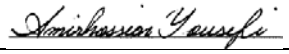
COVID-19 Exposure Prevention

Campus	**Burnaby**		**Approving Authority**	**Amir Yousefi**	
Dept/School	**SOE / ECET**		**Program**	**Service to Mechatronics & Robotics**	
Submitter	**Ronald J Stewart**		**Submission Date**	**July 20th , 2020**	
# of Students involved	**36**		**# of Staff involved**	**2**	
Return to campus start date and end date	Start Date **Sept. 9, 2020**	End Date **Dec. 18, 2020**	**Involved in developing the Plan**	**R.J. Stewart, P.Paleologou**	
Purpose	**Conduct essential labs in introductory service courses.**				

Directions:

1. Plan is reviewed and signed by the approving authority (Associate Dean/Department Manager).
2. Plan, risk assessment, and any associated procedures (Documents) are submitted to the Emergency Operations Centre (EOC) at ReturntoCampus@bcit.ca
3. Documents are sent to the campus Joint Occupational Health and Safety Committee (JOHSC) for review, and will have 48 hours to review the Documents.
4. Feedback from the JOHSC sent back to the EOC for approval, who will provide a written response either approving or articulating why the plan is not approved to the Associate Dean/Department Manager.
5. Once approved, it is the department's responsibility on a daily basis to ensure all safety protocols are followed, as outlined in their return to campus plan.

Approved

Approving Authority Signature	**Amir Yousefi** 	**Date**	**July 21, 2020**

JOHSC Review

JOHSC Name		**Date submitted to JOHSC**	
Comments			

Revisions to Plan by Submitter:

Note changes made to plan based on JOHSC or EOC feedback, if applicable. Submit Plan back to EOC for approval.

Approving Authority Signature		**Date**	

EOC signature

Name	Position	Signature	Date

SOE – ECET
ELEX 1205 & 1215
Return to Campus Plan

1. Description

The ECET instructor assigned to ELEX 1205 and ELEX 1215, in consultation with the Mechatronics and Robotics program head, has identified the practical laboratory sessions that are required, at a minimum, to fulfill the academic requirements for successful completion of the following courses:

Service Courses

- ELEX 1205
- ELEX 1215

Introductory laboratory exercises in ELEX 1205 and ELEX 1215 are ineffective without on-site supervision. No more that 50% of the labs can be delivered remotely without seriously deteriorating the course outcomes. Therefore, while all lectures and tutorials, as well as 50% of the labs will be delivered online, the remaining lab sessions will be conducted in SW1-3055 with half-sets of students. Physical distancing will provide the required isolation

Timetables should be arranged so that one set has the labs for both courses on the same day of the week, and the other set has both labs on another day. The room will be in use every week, with the half-sets alternating. These are the only two courses using SW1-3055.

While the workstations are separated from one another by at least 8 feet, there is no aisle wide enough to guarantee 6-foot spacing if students move about the room, so they will be required to stay at their stations once they have entered the room.

The room will require cleaning in advance of each day.

2. Framework

Elimination of hazard

- Reduced number of students in lab space to ensure compliance with physical distancing requirements.
- Safety measures/protocols and occupancy limit signage to be posted for each lab. The lab rooms will be limited to a maximum of 10 students and one instructor in SW1-3055.
- Only essential equipment and wiring required to conduct a lab will be made available / accessible to students. Shared lab equipment to be sanitized using Clorox Total 360 disinfection system (by Facilities Work Request) at the end of each day the lab is used.
- Unneeded or unused equipment will be removed and stored so as not to be readily accessible.

Engineering (barriers and partitions)

- The room is large enough to position workstations with 8-foot spacing, so barriers are not required.

Administrative (rules and guidelines)

- All Faculty will have completed the Pandemic Exposure Control Plan Summary training.
- Communication to students regarding behaviour expectations, conduct, protocol to be followed and expectations regarding not coming to campus if sick and will be enforced if evident in the lab or upon arrival to the lab.
- Written instructions are prepared (**see Appendix I**) and will be sent to students prior to on-campus lab activities. Instructions will emphasize that students should remain at home if feeling ill and will describe the protocol to be followed when entering and leaving the lab space.
- Students will be quizzed as to their health prior to admission to the lab space.
- Directional signage and markings on the floor define the workspace area and provide guidance required to ensure 2 metre physical distancing is maintained.
- Recommended COVID-19 signage will be prominently posted in the lab spaces (**see Appendix II**).
- Verbal, written and/or video instructions will be delivered to the students on proper hygiene (hand washing) and relevant signage will be prominently displayed inside the lab and at the entrance to the lab.
- Those displaying symptoms will be directed to first aid and asked to leave campus.

Cleaning and hygiene practices

- Small containers of sanitizer, isopropyl alcohol wipes and tissues will be provided at workstations and at practical locations to encourage good hand hygiene.
- Enhanced cleaning and disinfecting of the workplace, particularly high contact items such as benches and connection points, wiring and other equipment. This task will be performed by students at the beginning and end of each lab and supervised by the instructor.
- Work request will be submitted to Facilities to have the cleaning contractor disinfect the lab spaces and equipment using the Clorox Total 360 system at the end of each day the lab is used.
- The MSDS for the Clorox Total 360 system resides in ShareSpace (https://sharespace.bcit.ca/sites/sas/Exposure%20Control%20Plan/SDS%20-Clorox-Total-360-Disinfectant-Cleaner%202016-2019.pdf).
- Students will be asked to wipe down their personal belongings and immediate work area with isopropyl alcohol wipes upon arrival and prior to leaving the lab.
- Faculty will wipe down door handles, light switches and similar common touch points.

3. How the plan and procedures will be communicated to those involved

- BCIT Safe Operating Procedure document (based on template). Refer to **Appendix III**.
- Ron Stewart and Pavlos Paleologou participated in the ECET Power Option's consultation with OH&S (John Di Bella) on required measures needed for safe, on-campus lab activities. This plan is derived from the Power Option's plan.
- Return to Campus management personnel (Janice Baldry and David Pereira) will be advised and consulted on this proposed plan and the measures being taken to ensure compliance with BCIT's COVID Return to Campus requirements.

- IT Services (Michelle Morrison, Mgr. Serv. Enablement) will be consulted and made aware of the planned disinfection protocol discussed in this plan and protection needed for the computer workstations.
- Facilities will be contacted and made aware of this plan's requirements. Work requests will be submitted and additional work requests, will be submitted as needed.
- All Faculty will have reviewed and discussed this Return to Campus plan.
- Students will receive instructions directly from their instructors incorporating relevant portions of this document.

4. Any education/training requirements

- All Faculty will have completed the Pandemic Exposure Control Plan Summary training.
- Students must have successfully completed the Student COVID and Pandemic training on the Learning Hub.
- Students will watch a safety video and have their understanding tested.

5. Materials/equipment needed to operationalize the Plan

Item	Quantity	Purpose
Hand sanitizers	10 small / 1 large	Hand hygiene
Isopropyl Alcohol wipes	10	Equipment cleaning
Paper towels	10	Promote good hygiene
Garbage receptacles	6	Promote good hygiene / minimize contamination and movement required.
Plastic garbage liners	30	For use with garbage receptacles

6. If physical distance (2 metres) can't be maintained, what control measures will be in place

- Not applicable. Physical distance can be maintained.

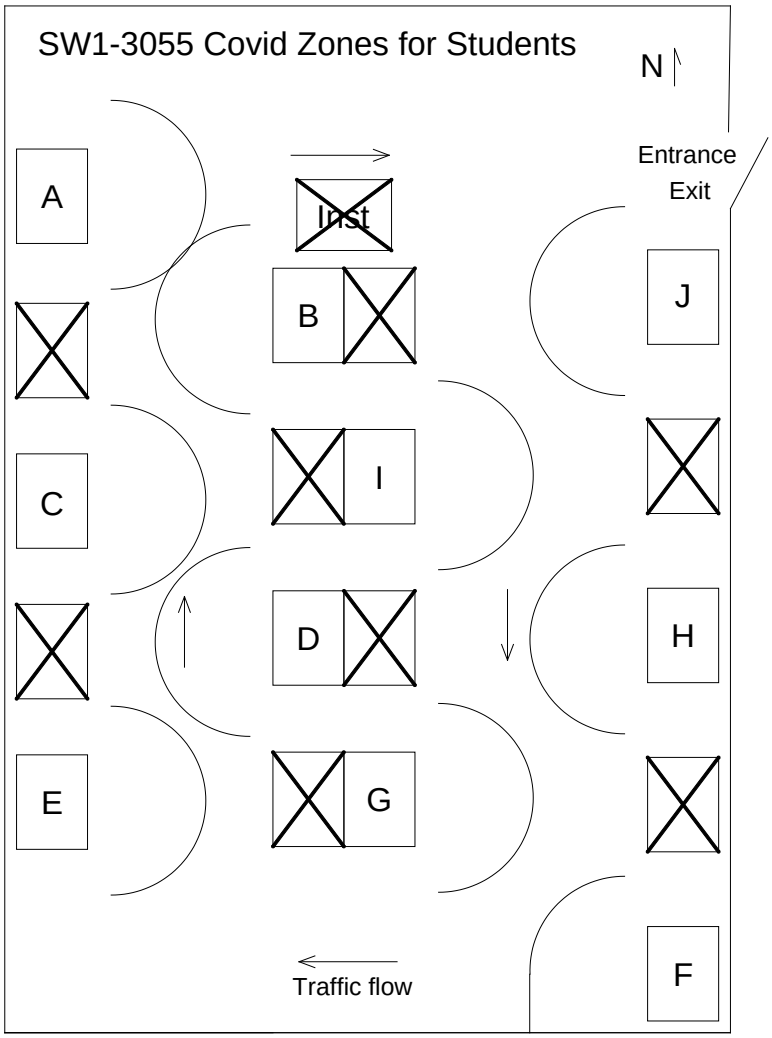
7. Procedures for picking up/dropping off equipment (if applicable)

- Equipment will remain at the bench through the semester. Students will provide some of their own materials.

8. Procedures for room management (if applicable)

- Lab access will be controlled by identifying a location for students to arrive and line up, awaiting controlled entry to the lab (this will depend on degree of utilization of 3rd floor hallway). Physical markings will be placed on the hallway to ensure 2 metre physical distancing is maintained.
- Students will be required to use hand sanitizer prior to upon entering the lab space and confirm they have no illness or symptoms of illness.
- Students will be instructed to remain within their marked workstation space at all times while in the lab. Requests to leave their assigned space will be managed by the instructor.
- Any student or instructor moving about the room will be required to wear a cloth mask.
- When the instructor is required at a student workstation, both parties must be masked, and work as far as possible from each other, while maintaining space with neighbouring students.
- One student at a time will be permitted to leave the lab room for a washroom break or similar activity. This will require coordination by the instructor.
- Upon completion of the lab activity, students will be asked to wipe down common touch points (tables, keyboards, etc.) using Clorox wipes and to wipe down their personal effects. They will be instructed to clean their hands with hand sanitizer when complete and are ready to leave the lab room.
- Students will exit the lab room one at a time as directed by the instructor.
- Students will be permitted to have a small backpack at their workstations.
- Students will be permitted to drink water from a closable-top container of water.

Lab Floor Plans with work areas designated:



Boundary arc radius: 4'
Normal minimum spacing: 8'

- Note that this configuration requires the west-side stations to be moved 4 feet north.

9. Procedures for cleaning equipment/surfaces

- The lab equipment (computers, industrial equipment) will be de-energized at the end of the lab prior to the lab being cleaned.
- Labs will be cleaned and disinfected using the Clorox Total 360 system at the end of the day (after 6 pm) on the days that the lab is in use. All surfaces, chairs, tables and equipment in the students' workstation areas will be disinfected using the Clorox Total 360 misting system.
- Computer workstations (towers) are housed in security cages. The tops and sides of these cages will be covered with plastic sheeting to prevent disinfecting liquid or water from entering the computer. The cage volume will ensure adequate ventilation for computer cooling. This cleaning method and the

protection for the computer workstations has been discussed with, and approved by, Michele Morrison (Mgr., Serv. Enablement) for other ECET labs.

- No special protection measures will be required for the monitors, keyboards or mice in this lab room.

10. Notifying Facilities for cleaning used areas (how this will be accomplished)

- The Clorox Total 360 system and how it would be used in our lab environment and will be arranged with facilities
- Work requisitions will be opened for SW1-3055.
- Facilities will be kept up to date on any necessary changes to the requested cleaning .

11. Process for monitoring compliance to this Plan – Common Controls Checklist

Control Measure	Control Description	Tasks Controlled	PPE?		Material Procurement Details
State control measure title.	*Provide a brief description of what is the control measure.*	*List applicable task #s.*	**Yes**	**No**	*State how each item will be procured and by whom.*
Signage	WorkSafeBC and BCIT COVID-relevant signage	1, 2 & 3	☐	☒	Program faculty
Preventive Materials	Hand sanitizer, garbage receptacles, paper towels	1 & 2	☐	☒	Facilities/Stores
Lab Room Cleaning/Disinfection	Clorox Total 360 Disinfecting system sprayer	1 & 3	☐	☒	Facilities
Workstation Measures	All required equipment is present at workstation. Students are under supervision and required to remain at their workstations.	1, 2, 3, 4 & 5	☐	☒	Program faculty

Appendix I Written Instructions for Students

COVID-19 Safety Protocol for Electrical Power and Industrial Control Labs

1. Students exhibiting symptoms of COVID-19 or feeling unwell must not come to BCIT's Burnaby campus. Please do not attend scheduled on-campus lab sessions if:
    - you have any of the following symptoms:
        - Fever and/or chills
        - Cough and/or shortness of breath
        - Sore throat and painful swallowing
        - Stuffy or runny nose
        - Loss of sense of smell
        - Headache and/or muscle aches
        - Fatigue
        - Loss of appetite
    - you have travelled outside of Canada within the last 14 days;
    - are, or have recently been, in close contact with a person who tested positive for COVID-19.

2. Students must inform by email the course instructor, (Ronald J Stewart, rstewart67@bcit.ca) if for any reason, they cannot attend their scheduled on-campus lab session.

   Students who have missed a scheduled, on-campus lab will be accommodated at a later date. Students who have missed an on-campus lab due to any of the conditions listed in item one above must ensure they are no longer required to self-isolate and may be asked to produce evidence from a medical practitioner to this effect before being allowed to attend labs on campus.

3. Students must have successfully completed the Student COVID and Pandemic Training educational module on the Learning Hub **before** attending any on-campus lab.

4. Students arriving on-campus to attend a scheduled lab must adhere to the following protocol line up in the hallway outside the lab, maintaining a 2-metre physical distance at all times until directed to enter the lab by your instructor.

   Students who arrive late must remain at the door until admitted by the instructor.

5. When on campus read and obey all signage and directional indicators. These have been placed to help ensure the safety of yourself and others.

6. Before entering the lab please use the hand sanitizer provided to clean your hands.

7. Read the signage in the lab room, and all times obey it.

8. When in the lab remain at your assigned workspace area (it will be clearly marked). All required equipment and materials are available at your workstation.

If you need to leave your workspace for any reason please ask your instructor for permission to do so first. Wear a mask, clean your hands with the hand sanitizer provided at your workstation, and then exit the lab quickly as directed by your instructor.

When entering or exiting from your workspace, and while away from the lab space, ensure that you maintain as much spacing as possible between yourself and other people.

When using the washroom, ensure you wash your hands thoroughly with soap and dry them completely before leaving the washroom. Be mindful of contacting door handles and other common touch points. Use paper towel or tissue to avoid direct contact with common surface touch points.

Before re-entering the lab clean your hands with hand sanitizer at the lab entrance and await permission from your instructor to re-enter.

9. You are discouraged from leaving the lab room for snacks or lunch. On campus facilities for food services will not be available or will be significantly reduced. There will not be a location designated for you to have lunch outside of the lab room.

10. When you are finished the lab exercises assigned for the day, wipe your personal belongs at the workspace with the Clorox disinfectant and wipe the keyboard, mouse, computer monitor, valve handles and other touch points you used to conduct the day's lab activities. Clean your hands with the hand sanitizer provided at your workstation.

11. When you have received permission from your instructor, collect your personal belongings and exit the lab ensuring you maintain a 2-metre physical distance from others.

Appendix II COVID-19 Signage for Labs

2M Distance Sign

Exit Only Sign

Building Entrance Screening Sign

Entrance Only Sign

Washroom Handwashing Sign

Two Way Traffic Sign

BCCDC Hand Washing Sign

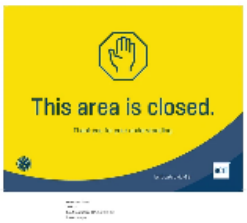
Please Stand Here Decal

Washroom Occupancy Sign

Protect Yourself Sign

Please Wait Here Decal

Please Sit Here Decal



Area Closed Sign

Do Not Leave Food in Fridge Overnight Sign

Occupancy Limit Sign

Closed Sign

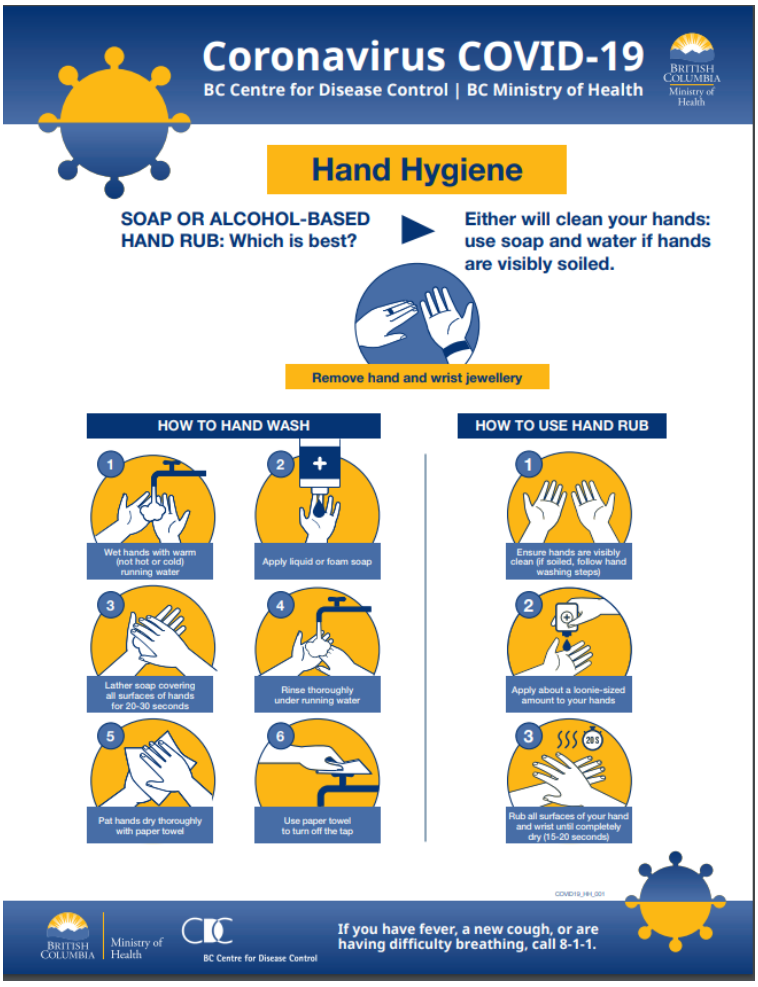
Clean Regular Touched Items Sign

One Way Traffic Decal

Please Do Not Sit Here Sign

Hand Sanitizing Location Sign

Appendix II COVID-19 Signage for Labs (cont.)



Appendix III BCIT Safe Operating Procedure

BCIT SAFE OPERATING PROCEDURE	Accessing and Operating Equipment in Automation and Instrumentation Labs.
Date Issued:	By: K. Manson Faculty
Version Date: 2020/07/16	Version 1.1

BACKGROUND

This document outlines the normal access and operation of the lab workstations in SW1-3075 and SW3-2750

PURPOSE

The purpose of this document is to outline the required conduct, behaviour and protocols needed to ensure a safe laboratory environment for both the student and the others in the immediate lab environment due to COVID-19 pandemic concerns.

RESPONSIBILITIES

Employer

- The employer is responsible for providing the equipment, tools, education, and training necessary for their staff to be able to perform their job duties safely, as outlined by this procedure.

Associate Dean

- The Associate Dean is responsible for reviewing these safe work procedures and practices with their employees.
- The Associate Dean is responsible for investigating unsafe work conditions and work refusals with their employees.

Faculty

- Follow the safety and exposure provisions outlined by this procedure.
- Do not perform job if they cannot be performed as outlined by this procedure.
- Report unsafe conditions, work refusals, and incidents to your supervisor.

Student

- Follow the safety and exposure provisions outlined by this procedure.
- Do not perform lab procedures if they cannot be performed as outlined by this procedure.
- Report unsafe conditions, work refusals, and incidents to your instructor, Program Head or Associate Dean.

BCIT Occupational Health and Safety (ssemohs@bcit.ca)

- Act as a resource for workplace health and safety concerns and investigations.

TRAINING AND EDUCATON

- All Faculty will have completed the "**Pandemic Exposure Control Plan Summary**" training.
- Students must have successfully completed the "**Student COVID and Pandemic**" training on the Learning Hub (as prepared by BCIT OH&S).
- Students will have read and understood the "**COVID-19 Safety Protocol for Automation and Instrumentation Labs**".
- Instructor led delivery of safe lab procedures to students directly.
- Posted signage inside and outside of the lab room identifying protocols to be followed.

EQUIPMENT

Below are the minimum supplies required to follow this procedure					
1	Isopropyl Alcohol wipes	3	Garbage receptacles and garbage bags.		
2	Hand sanitizers	4	Paper towels		

PROCEDURE

1. Reference Appendix I outlining "**COVID-19 Safety Protocol for Electrical Power and Industrial Control**"

REFERENCES

BCIT Pandemic Program – Documents and Templates
https://sharespace.bcit.ca/sites/sas/Exposure%20Control%20Plan/Forms/AllItems.aspx

Clorox Total 360 Disinfecting System https://sharespace.bcit.ca/sites/sas/Exposure%20Control%20Plan/SDS%20-Clorox-Total-360-Disinfectant-Cleaner%202016-2019.pdf

MSDS - Clorox Anywhere Hard Surface Sanitizing Spray https://www.thecloroxcompany.com/wp-content/uploads/2019/09/Clorox-Commercial-Solutions-Clorox-Anywhere-Hard-Surface-Sanitizing-Spray.pdf

MSDS - Clorox Total 360 Disinfectant Cleaner https://www.thecloroxcompany.com/wp-content/uploads/2019/09/Clorox-Commercial-Solutions%C2%AE-Clorox%C2%AE-Total-360%C2%AE-Disinfectant-Cleaner1.pdf

REVISION HISTORY

DATE	**Version**	Description	Author
2020/07/16	0.0	Template from Power Option received	John Di Bella, OHS Coordinator, K Manson, Faculty
2020/07/21	1.0	Detailed Specifications for SW1-3055	Ronald J Stewart, Faculty
2020/07/22	1.1	Reissue for version control	RJS
20XX/MM/DD	2.0	Major Content Revision (or template change)	Name, Position

COVID-19 Safety Plan

Reduce the risk of person-to-person transmission

To reduce the risk of the virus spreading through droplets in the air, implement protocols to protect against your identified risks. Different protocols offer different levels of protection. Wherever possible, use the protocol that offers the highest level of protection. Consider controls from additional levels if the first level isn't practicable or does not completely control the risk. You might likely need to incorporate controls from various levels to address the risk at your workplace.