

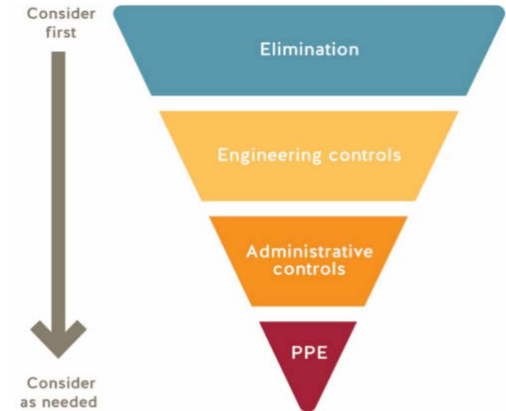


BCIT COVID-19 SAFETY PLAN ACADEMIC SPACES

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:	Chemistry Department CHEM 1103 (FOOD), CHEM 1121 (CENV), CHEM 1205 (BMET), CHEM 3310 (CENV), CHEM 3338 (BIOT), CHEM 3409 (CENV), CHEM 5509 (BIOT)		
Proportion of program offered on campus:	<i>15 chemistry courses in Fall 2020, 7 of which will have some lab sessions on campus. These courses are part of programs from other schools that have been designated as blended for Fall 2020, and for which lab skills are critical program goals.</i>		
Start date:	September 8, 2020	End date:	December 4, 2020
# of students:	Estimate of 175	# of employees:	15
Completed by:	Name Chemistry Department and Jennifer Talman	Position Associate Dean	Date July 29, 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.			
Campus/ Building	Room Number <small>Floor Plans found here</small>	Type of Space <small>Include washrooms and breakout rooms</small>	Capacity <small>Current capacity due to COVID-19</small>
Burnaby SW01	3010	Laboratory	8 (6 students + instructor + lab tech)
Burnaby SW01	3030	Laboratory	11 (9 students + instructor + lab tech)
Burnaby SW03	4650	Laboratory	6 (4 students + instructor + lab tech)
Burnaby SW03	4635	Laboratory	6 (5 students + instructor)
Burnaby SW03	3680	Laboratory	6 (4 students + instructor + lab tech)
Burnaby SW03	4680	Laboratory	6 (4 students + instructor + lab tech)

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).

Several of the chemistry courses require the students to learn hands-on lab skills such as:

- Techniques for pipetting, using separatory funnels, berets, etc.
- Use of specialty equipment (e.g., analytical balances, spectrometers, pH meters, GC, GC-MS, LC-MS/MS, HPLC, electrochemistry, fuel cells, etc.) that are used in industry
- Use of specialty glassware to carry out lab techniques (e.g., volumetric glassware.)
- Use of specialty glassware to carry out chemical reactions / synthesis.
- Learning the proper lab safety procedures for handling and disposal of chemicals.

These skills can not be taught online, as they require:

- practice to master the techniques
- use equipment / apparatus / instrumentation / chemicals that are only accessible in the lab
- use of fume hoods

All of the chemistry theory will be delivered online, as will most of the laboratory experiments. Small subsets of the classes will be asked to come to campus to participate in hands-on skills-based labs each week.

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.

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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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Workstations have been set up allowing 2 m between workstations, demonstration area and walkway. Lab tech will stay primarily in lab tech room, but will be allowed to enter the lab along walkway as needed.
2.	Demonstration, work and assessment stations are set-up to allow for 2 metres physical distancing.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	as above
3.	Identified area(s) where students wait outside of teaching space until allowed inside by instructor.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Instructors will inform students as to when to arrive to lab. The lab will be opened in advance of this time so that students may enter the lab directly without waiting in the hall.
4.	Work has been scheduled to minimize numbers of individuals on campus at one time.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Only a subset of each class (determined by new lab capacity) will do a face-to-face lab each week, during normal lab time.
5.	In shared spaces, safety protocols have been put in place to reduce close contact between users.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Only one student will use the shared space at a time with social distancing measures being employed.
6.	Movement within the room is identified, such as with directional arrows, for walkways and entrances/exits.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Arrows on the floor identify directions.
7.	Water fountains are put out of service, and only touchless water bottle filling station available.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no water fountains in the labs.
8.	Mobile fans have been removed or put out of service.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no mobile fans in the labs.
7.	Washrooms have been identified.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Will use common space washrooms
8.	Break area(s) for student use have been identified.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Students should attend full 2-hour or 3-hour lab sessions, but may go outside or go to the washroom if they need a break.
9.	Break areas for employee use have been identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Instructors should attend full 2-hour 3-hour lab session, but may go outside or to their office if they need a break.

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#	Control Measure	Yes	No	NA	Details (as per Directions)
10.	Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ENGINEERING CONTROL MEASURES					
11.	Barriers are implemented to separate work areas or walk ways, when physical distancing not practical.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Physical distancing can be maintained without the use of barriers
12.	Barriers are stable and do not introduce other safety hazards, e.g. tripping.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
13.	The impact on ventilation requirements have been considered if there's been a significant use change for the instructional space.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The only change in usage of space is a drastic reduction in occupancy
	Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SIGNAGE (ADMINISTRATIVE) <i>Signage is available @ BCIT online Inventory. Guidelines for posting signs are available on ShareSpace.</i>					
13.	Posted: Physical distancing (2 m) sign(s) Item 1A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14.	Posted: Hand washing sign(s) Item 29B	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15.	Posted: Health screen sign(s) Item 3C	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16.	Posted: Hand washing sink location sign(s) Item 14A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
17.	Posted: Hand sanitizing station location sign(s) Item 13A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18.	Posted: Protect yourself sign(s) Item 21A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19.	Posted: Occupancy limit of this room sign(s) Item 37A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
20.	Posted: Other signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Please list:</i>
ORIENTATION AND TRAINING (ADMINISTRATIVE)					
21.	Routine safety discussions held to review control measures and safety protocols.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
22.	All students have completed the online Pandemic Exposure Control Plan training.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>How will compliance be checked:</i> Students will forward email confirming completion to instructors to show they have completed training OR Program Head for course will email instructor to let them know all students have completed the training.
23.	COVID-19 safety Site orientation for students has been developed and posted in the Learning Hub.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Procedure for orientation found here. Student COVID-19 Orientation Checklist found here.</i>

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24.	All employees have completed the online BCIT Pandemic Exposure Control Plan Training .	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Upon completing the training, faculty and lab techs will forward email confirming completion to their AD (and will cc the AD's assistant)
25.	All employees have completed the online New Employee Orientation module.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>New and Returning Employee Orientation Checklist found here. Each employee to save the checklist to their online New Employee Orientation course</i>
26.	Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RULES AND GUIDELINES (ADMINISTRATIVE)					
27.	All unnecessary and self-serve items have been removed from the spaces. <i>e.g., pens, paper, etc.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All supplies asked for prior to class and stocked at each workspace
28.	Doors that students are to use to enter and exit have been clearly identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Signs have been placed on the doors and arrows have been placed on the floor
29.	Handouts, papers, and items are not physically provided to students.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Handouts will be posted to the Learning Hub in advance of labs
30.	Students have dedicated tools/equipment, e.g., items are not shared between students.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
31.	If cleaning common touch points or tools/equipment not practical, then it is identified when hands are washed/sanitized before and after use.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Explain:</i> Students will be wearing gloves (as is usual for chemistry labs), and common touch points will be sanitized
32.	Work spaces/stations are dedicated for an individual or group use and not shared with others.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
33.	Single-use (disposable) products are used where feasible.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
34.	Measures are in place to accommodate student sick at home.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Students will be given an appropriate make-up exercise if there are unable to attend. Due to the reduction in lab capacity it is unlikely that face-to-face make up labs will be available.
35.	Procedures in place to screen students on a daily basis.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>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.</i>
36.	There is a procedure in place if a student or employee becomes ill on campus.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>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.</i>
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Refer to the COVID-19 Pandemic Scenario Playbook for more information. Confirm if the person is aware of self-isolation requirements and protocols.</i>
38.	Provisions made for students to maintain same lab/class cohort throughout the Term.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
39.	Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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PERSONAL PROTECTIVE EQUIPMENT (PPE)					
40.	Appropriate PPE for the hazards of employee and student tasks are available to be provided (non-COVID-19 related ppe).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Nitrile gloves are provided for all staff and students in the chemistry lab for handling of chemicals.
41.	Training is provided for the above PPE to students and employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Lab instructors instruct students regarding when gloves are required.</i>
42.	Appropriate PPE for COVID-19 is available to be provided to students and employees. Supply requests emailed to ppe@bcit.ca .	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><i>Based on circumstances allowed for in the BCIT COVID-19 Go-Forward Plan, Risk Assessment Matrix Summary.</i></p> <p><i>List PPE and tasks/activities required for:</i></p> <p>Face masks will be available for staff and students. Although the 2m of physical distancing will be maintained during the majority of lab work, it may be necessary for the instructor or technician to approach closer than 2 m if they observe an unsafe chemical situation and need to intervene.</p> <p>In these situations, face masks will be worn by both the student and the instructor (or technician)</p>
43.	PPE safe donning, doffing, disposal, and disinfecting instructional materials are available for students and employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><i>Post applicable signs in a visible location if ppe required.</i></p> <p><i>Use the Student Orientation checklist to assist orientation/training by instructors.</i></p> <p><i>Use the Employee Orientation checklist to assist orientation/training by their supervisors.</i></p>
44.	Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CLEANING					
45.	Facilities is aware of the cleaning needs for the area. Facilities work requests have been submitted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Cleaning includes common touch points and appropriate frequency for the area. This includes high touch areas. FCD work request number: 1447092.</i>
46.	Training will be provided to faculty and students performing cleaning duties and cleaning materials have been provided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><i>Cleaning Standard Operating Procedures have been located here. What are the cleaning products/materials: Will be procured from BCIT PPE - TBD</i></p> <p><i>What ppe is required: nitrile gloves</i></p>
47.	Assessment of sufficient number of hand wash stations conducted, and an appropriate number of handwashing stations are available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Consider time it will take for hand washing to take place, to determine what is a sufficient number of hand wash stations. Some areas find a ratio of 8:1, students to sink, effective. The minimum amount of hand washing required is once before class starts, after class ends and before and after breaks.</i>
48.	Handwashing station(s), stocked, easily accessed, and have been identified to students and employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><i>Sink Location: at each lab bench (except in SW3-4635, where nearest sink is across the hall)</i></p> <p><i>Stocked with soap Y <input checked="" type="checkbox"/> N <input type="checkbox"/> paper towel Y <input checked="" type="checkbox"/> N <input type="checkbox"/></i></p>

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49.	Hand sanitizing station(s), stocked, and have been identified to students and employees.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Hand sanitizing station will only be provided in SW3-4635 since all other labs have hand washing stations.</i>
50.	All Safety Data Sheets (SDS) and cleaning procedures used are found here .	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>If not, describe:</i>
51.	The area(s) have been decluttered so that cleaning is simplified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
52.	Barrier cleaning process has been arranged if the barrier(s) could become contaminated.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Barriers can become contaminate if they are a touch point or if the contaminated with droplets by e.g. coughing or sneezing.</i>
53.	Common touch points and tools/equipment that must be shared are identified and cleaned between students and classes.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Common equipment, including fume hoods, tap handles, spectrophotometers, vacuum pumps, pH meters will be sanitized by the lab technicians between classes.</i>
54.	Storage space for personal articles have been identified and are cleaned regularly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Where is the storage: on lab benches</i> <i>Who will clean: students will be asked to sanitize their own lab benches before and after use</i>
55.	Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Ensure this COVID-19 Safety Plan is posted. Who will conduct these inspections and how often? Chemistry labs will be inspected by Kevin Soulsbury (PH, Chemistry) or alternate on a monthly basis.</i>
57.	Audits of inspections are planned to ensure that control measures continue to be effective.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Who conduct the audits and how often? Jennifer Talman (Associate Dean) will conduct the audits on a monthly basis</i>

APPROVAL

All COVID-19 risk control measures for this campus activity are in place.			
Manager	Name Jennifer Talman	Position Associate Dean, SoCAS	Date August 17, 2020
EOC	Name <i>Glen Magel</i>	Position EOC Director	Date August 29, 2020