

Department of Physics and Astronomy (PHAS)

Principles and procedures for research re-entry.

Purpose: To implement a work plan that minimizes the number of people in the lab at one time to maintain physical distancing. The COVID-19 virus remains a serious concern during the phased ending of research curtailment, and thus we will need to adopt new habits that (i) allow us to continue our work, while (ii) minimizing the risk of acquiring and spreading the virus.

Procedures outlined in this document are in addition to those described in the general resumption plan for the Faculty of Science (found at [Science Return to Research](#)). This document is posted on the departmental website as [PHAS Principles and Procedures for Research re-entry](#)).

Building structure: This document outlines procedures specific to research groups located in two buildings: Hennings and Chemistry/Physics (ChemPhys). In Hennings, a few research groups from PHAS will be resuming their operation in Phase 1. In addition to research labs, Hennings has a number of shared facilities, such as Mechanical shop, Electronics shop and IT services, which will also be resuming operation as described in the Appendix at the end of this document. Three research groups will be returning to ChemPhys in Phase 1. All of them have their labs in the basement area, whereas most of the building is occupied by the Department of Chemistry. Here, return to research will be closely coordinated with Chemistry. No PHAS shared facilities are located in ChemPhys.

COVID awareness: According to the WHO, common symptoms of COVID-19 include fever, dry cough, tiredness, loss of sense of taste/smell, sore throat. If you are experiencing any of these symptoms, stay at home. Use the BC Health Self-Assessment tool to determine if you require further testing or medical care: <https://bc.thrive.health/>. If members of your immediate family/roommates (i.e., a member of your household) are ill, you should also remain at home in quarantine. If you or someone from your household falls ill, you should inform all colleagues that you have come into contact with, and they too should go into self-isolation and monitor signs and symptoms for 14 days.

Be aware that people without symptoms might still be infected. Even if you or your co-worker feel fine, you should assume that either of you could be an asymptomatic carrier, and take all due precautions, such as frequent hand-washing, maintaining appropriate physical distance, and wearing a face mask.

Key principles:

1. The orders, notices and guidance of the Provincial Health Officer will be followed. All who return to work must comply with those guidelines.
2. The building occupancy will not exceed 1/3 of its normal level in Phase 1 and not exceed 2/3 in Phase 2.
3. No one with symptoms should leave their home.
4. Always maintain a minimum distance of two meters to the next person.
5. The defined maximum number of persons allowed in each room must not be exceeded.
6. Avoid social contact by keeping your distance and minimizing contact in common spaces.
7. It is the responsibility of PIs to set procedures that allow safe lab work, and the responsibility of trainees to observe all rules and procedures. PIs should check periodically to ensure that procedures are being observed, and adjust flexible aspects as needed, but in line with general principles.
8. PIs and trainees are responsible for coordinating individual/shared lab space to minimize interpersonal conflict.

9. Violations are considered to be against UBC SC6 Scholarly Integrity Policy (see end of document), and will have negative consequences (i) for trainees, such as loss of building access, and (ii) PIs, potentially leading to investigations of scholarly misconduct by the VPRI.

Safety procedures:

1. Personal hygiene.
 - a) Wash/sanitize hands when entering or leaving any space.
 - b) Hand sanitizer will be provided at entrances to common areas (e.g. building entrance, interior doors that cannot be propped, etc.). Hands should be washed/ sanitized before and after you move through common areas (e.g. corridors, stairwells, etc.).
 - c) Mask usage is encouraged in shared working areas and common areas to mitigate the risk of unknowingly transmitting illness. It is acknowledged that the use of non-medical masks is a personal choice and using one has both limitations and risks. Information to that effect can be found at: <https://srs.ubc.ca/2020/05/13/non-medical-masks-and-the-risks-associated-with-them/>
 - d) Use of other Personal Protective Equipment (PPE), such as lab coats and gloves, should follow UBC 'Safety and Risk Services' (SRS) Guidelines (<https://srs.ubc.ca/health-safety/research-safety/general-lab-safety>).
 - e) All individuals are responsible for cleaning shared surfaces and spaces before and after they use them.
2. Campus and building access.
 - a) Any personnel required to be at UBC are strongly advised to use transportation that minimizes exposure risk, e.g. private vehicle, motorbike or bicycle; or walk.
 - b) Translink options to be considered in compliance with City of Vancouver and BC recommendations and staggered starts/departures within each working group are encouraged.
 - c) Each person must enter Hennings or ChemPhys buildings using their own keycard. It is not permitted to allow another person into the building using ones own keycard.
3. Office/Seminar Room use.
 - a) Office space is to be used only if working from home is not possible, and must be approved by the Head.
 - b) No in-person meetings, seminars, journal clubs, etc.
 - c) Minimize social interactions in the building; maintain physical distancing to the best of your ability when interactions are required.
 - d) Use of office spaces adjacent with research laboratories is permitted only for waiting for the completion of a long experimental run, and only if proper physical distancing is maintained.
4. Work space use.
 - a) Only personnel required to carry out experimental work should be using lab spaces.
 - b) Return to work hours are 7:00 am to 6:00 pm Monday to Friday. This allows custodial staff to do the necessary extra cleaning without other people around. Work after hours, as well as on weekends and holidays will have to be justified (e.g. long experimental runs) and approved by the Head on a case by case basis.
 - c) When working in the lab and/or moving through common areas, always maintain a minimum distance of two metres to the next person.
 - d) In cases where researchers must work together (e.g., moving a piece of heavy equipment, working on equipment that requires two operators), gloves and facemasks must be worn.

- e) To facilitate appropriate physical distancing and reduce the average occupancy of work spaces, each PI will establish occupancy procedures as to who can be present in the lab area at any given time (e.g., in shifts) and post it online. A link to an online schedule and a Sign-in/Sign-out sheet will be posted at the lab entrance. All researchers will sign in before beginning their work, and sign out when they leave.
- f) Consult with the building manager and/or posted fire regulations on which doors can be safely propped open and open them at the start of each day to minimize high touch areas.
- g) Clean high touch areas within your work space regularly.
- h) No lab will operate until the appropriate 'Request to Return to Research' application indicating the time schedule and the lab occupancy is approved by the Head.
- i) When common lab space is shared with other research groups, occupancy will be coordinated between the groups.
- j) When researchers work alone, UBC Working Alone policies must be followed as outlined in <https://srs.ubc.ca/health-safety/safety-programs/personal-safety/6969-2/> . Arrangements with a contact person must be made to assure someone knows when they enter and leave the lab. Emergency contact numbers should be made available (by PI) to all research personnel in the lab.

5. Common areas outside labs.

- a) Strictly observe a minimum 2-metre safety distance. Minimize the use of common areas when possible to reduce the amount of social contact.
- b) Follow designated stairwells for ascending and descending between floors; these will be clearly marked.
- c) Use elevators only for heavy loads and accessibility needs; elevators must be limited to one person at a time.
- d) All lunch and kitchen areas will be closed for food preparation and storage including fridges and microwaves.
- e) Main Office will be open to one person at a time to allow retrieving mail or using the printers or photocopiers.
- f) Meals, snacks and breaks should be enjoyed outdoors whenever possible. Alternatively, Hennings 200 lecture hall can be used, provided that all rules of social distancing and personal hygiene are complied with. Individuals are responsible for wiping down their eating area before and after use.
- g) All common washrooms can be used one person at a time only.

6. Multiuser facilities.

- a) Professional shops (Mechanical, Electronics, IT): User access will require adherence to facility specific procedures and will be controlled by each facility supervisor.
- b) User shops (Student shop, Water jet, Laser cutter): Will be accessible only between 8am and 4pm in Phase 1. Usage of these facilities will be controlled by the machinist-on-duty, assigned daily by the manager of the Mechanical/Engineering services. That person will make sure that (1) physical distancing between users is maintained at all times, (2) shared tools are properly cleaned by all users before and after use, (3) maximum occupancy posted at the entrance is complied with, and (4) general guidelines on personal hygiene are followed. An online schedule will be available for users to check on the occupancy of the shops at any particular time and to plan their visit accordingly.
- c) Only one person at a time is allowed in the Physics Stores. When accessing Stores, users must wipe down the keyboard and mouse of the checkout computer before and after use.

Building Emergency Response Plan:

1. Hennings: In the event of an emergency, standard building emergency procedures are to be followed, while adhering as best as possible to social-distancing practices. Machinist-on-duty, assigned daily by the manager of the Mechanical/Engineering services, will be responsible for BERP protocols in Hennings. That person will be supplied with a list of the research personnel and laboratory rooms that are occupied each day. The name and contact information of Machinist-on-duty will be posted on the entrance door to the professional machine shop.
2. Chem/Phys: standard emergency procedures must be followed in coordination with the Department of Chemistry as found at <https://www.chem.ubc.ca/safety>.

Monitoring and enforcing compliance:

1. Supervisors cannot require trainees or staff to work in conditions which may result in an unsafe working environment. If you believe this is the case, do not report to work and contact your supervisor. If no satisfactory solution is reached, contact one of the following: graduate students should contact Graduate Advisor (gradadvr@phas.ubc.ca); staff, faculty and postdoctoral fellows/RAs should contact HR Manager (hr@phas.ubc.ca). PIs and trainees shall work in a manner that is cooperative, respectful and friendly to minimize and, if necessary, resolve interpersonal conflicts related to access to shared space. Any confidential concerns can be sent to PHAS Head, Colin Gay (phas.head@ubc.ca). University wide safety policy should be complied with following the general rules described in <https://srs.ubc.ca/health-safety/>.
2. At least one staff or faculty member will be on site in Hennings (machinist-on-duty) and one in the basement area of Chem/Phys at any given time during the regular working hours. Their contact details will be posted on the entrance door to the Professional Machine Shop (Hennings) and by the basement elevator in ChemPhys. This person will make sure that the procedures outlined in this document are complied with.
3. Compliance will be monitored by key card access and periodic checks by responsible person.
4. Non-compliance by Principal Investigators, including condoning/not acting on trainee misbehavior, will be considered a violation of UBC Policy.
5. Non-compliance by trainees will be reported to the supervisor and Head, and may result in the trainee losing access to their laboratory and other consequences.

Responsibilities:

1. Head.
 - a) Approves plans submitted by faculty, facilities/staff managers.
 - b) Assign faculty for daily monitoring and ensuring safety.
 - c) Address any issues of non-compliance.
2. Faculty, Facilities/Staff Managers.
 - a) Establish and implement safety procedures for their lab that adhere to these guidelines.
 - b) Establish work schedules for their lab; document and archive these schedules.
 - c) Coordinate with other PIs on shared areas, as needed.
 - d) Post maximum lab occupancy on lab entrances.
 - e) Post and collect/archive sign-in/sign-out sheets on lab entrances.
 - f) Provide group members with PI's contact information, as well as emergency contacts.
 - g) Train the employees about the best-practices to prevent COVID-19 infection, as well as about Faculty wide and Department wide policies in that regard. This signed document will constitute a written record of this training. It must be kept either with the PI or centrally by the department.
 - h) Take the UBC-specific COVID-19 training when it becomes available.

3. Staff and students.

- a) Follow all social distancing, safe-work, sign-in/sign-out, and working-alone procedures.
- b) Read, understand and sign off that they consent to following all the Federal/Provincial regulations and UBC policies pertaining to performing research during COVID-19.
- c) Report concerns regarding COVID-19 concerns to supervisors, as appropriate in the context of UBC and BC privacy regulations, and as outlined above.
- d) Take the UBC-specific COVID-19 training when it becomes available.

Signature line for researcher acknowledgment

I _____ have read and understand the additional precautions being taken during this time in order to reduce our risk from COVID-19 and sign below to verify that I am happy to continue to work in compliance of this policy.

RESEARCHER SIGNATURE _____

DATE _____

SUPERVISOR SIGNATURE _____

DATE _____

Appendix 1. Multiuser Facilities

- I. Mechanical shops and Stores
- II. Electronics shop
- III. IT services
- IV. Student shop, waterjet cutter, and laser cutter.
- V. Shipping/receiving

I. Mechanical Shops (MShop) and Stores

[When to Come to Work, When to Stay Home, Getting to Work and Working Areas](#)

- See the departmental policy for general guidelines.
- Each staff member will be assigned to shift A or B, and can only come to campus on those days.
- Main Machine Shop (rooms 215 A-H): No more than two (2) persons are allowed to work in the area at the time
- Welding Shop (217): No more than two (2) persons are allowed to work in the area at the time
- Materials Store (117 A-C) & Woodworking Shop (107): No more than two (2) persons are allowed to work in the area at the time
- PHAS Stores (210): No more than one (2) person is allowed to be in the room at the time

[General Guidelines for Physical Distancing and Movement Around Buildings, PPE, Hand Washing, and Use of Sanitizers](#)

- See the departmental policy for general guidelines.
- Technicians are encouraged to wear a mask at all times.
- A mask must be worn when moving around the shops if it is not possible to maintain a 2 m distance from coworkers
- Shop coats must be isolated from each other unless they are being sent for laundering.

[Shared Equipment Cleaning](#)

- See the departmental policy for general guidelines.
- Shared equipment (mills, lathes, etc.) must be wiped down with soapy water or sanitizer before and after use, and at a minimum at the start and end of each shift.
- In Stores, all common surfaces, such as drawer handles and computer keyboard, must be wiped down with sanitizer after use.

Changes to Operating Practice

- The staff may be called on more often to deal with issues in the labs because the people who are usually responsible are working from home.
- The supervisor and technicians will be available to do consultations over Zoom or phone to limit the number of staff coming to the shop
- A desk will be placed in the hallway for customers to pick up parts or material they ordered through email communication.

Site-specific Cleaning, Disinfection, and Wayfinding

- Do not use solvents on equipment windows, touch screens, or similar items. Do not douse equipment with soap and water; use soap and water sparingly, and dry the equipment immediately after washing with a well wrung out cloth.

Staffing Plan

- In Phase 1, technicians will work on-site in two shifts, A and B, and each will last three days. One shift will consist of three technicians, and the other one will have two technicians plus Director on site.
- All work that can be performed off-site (CAD design, purchasing, etc.) should still be done from home.

To-Do List for Reopening

- Bench or cart in front of MShop (217) for parts pick up (on opening day)

II. Electronic Lab (ELab)

When to Come to Work, When to Stay Home, Getting to Work and Working Areas

- See the departmental policy for general guidelines
- During Phase 1, all work that can be performed off-site (the majority of the work) should still be done from home; when engineers or technicians need to come to the ELab for a specific task, they have to get permission from Technical Services Director who is going to coordinate their requests
- Director's Office (251) and Electronic Lab Rooms 254 - 256: No more than two (2) persons are allowed to work in the area at the time
- Electronic Lab Rooms 255, 257, and 259: No more than one (1) person is permitted to work in the area at the time

[General Guidelines for Physical Distancing and Movement Around Buildings, PPE, Hand Washing, and Use of Sanitizers](#)

- See the departmental policy for general guidelines.
- Engineers and technicians are encouraged to wear a mask at all times.
- A mask must be worn when moving around the lab if it is not possible to maintain a 2 m distance from coworkers

[Shared Equipment Cleaning](#)

- See the departmental policy for general guidelines.
- Shared equipment (instruments, tools, etc.) must be wiped down with soapy water or sanitizer before and after use, and at a minimum at the start and end of each day.

[Changes to Operating Practice](#)

- In Phase 1, ELab will still be closed most of the time
- Engineers and technicians will be available to do consultations over Zoom or phone to limit the number of people coming to the lab

[Site-specific Cleaning, Disinfection, and Wayfinding](#)

- Do not use solvents on equipment windows, touch screens, or similar items. Do not douse equipment with soap and water; use soap and water sparingly, and dry the equipment immediately after washing with a well wrung out cloth.

[Staffing Plan](#)

- In Phase 1, most of the work will be done from home; however, staff members can come to the ELab for a specific task, or they can be invited by Director to go to the lab for a particular job. In both cases, they have to get permission from the Technical Services Director, who is going to coordinate their presence on-site.

III. IT Services

[When to Come to Work, When to Stay Home, Getting to Work and Working Areas](#)

- See the departmental policy for general guidelines
- During Phase 1, all work that can be performed off-site (the vast majority of the work) should still be done from home; the staff is permitted to come to PHAS for a specific task, and that visit must be approved by IT Manager.

IV. Student Machine Shop, Waterjet Cutter, and Laser Cutter

[When to Come to Work, When to Stay Home, Getting to Work and Working Areas](#)

- See the departmental policy for general guidelines.
- Student Machine Shop: One technician will be in the student machine shop (room 224) during working hours (8:00 AM to 4:00 PM); no more than three (3) persons are allowed to work in the area at the time
- Waterjet Cutter Room (219): No more than two (2) persons are allowed to work in the area at the time
- Laser cutter use must be coordinated with Eng Phys Lab director

[General Guidelines for Physical Distancing and Movement Around Buildings, PPE, Hand Washing, and Use of Sanitizers](#)

- See the departmental policy for general guidelines.
- Technicians, staff and students are encouraged to wear a mask at all times.
- A mask must be worn when moving around the shops if it is not possible to maintain a 2 m distance from coworkers

[Shared Equipment Cleaning](#)

- See the departmental policy for general guidelines.
- Shared equipment (touch screens, mills, lathes, etc.) must be wiped down with soapy water or sanitizer before and after use, and at a minimum at the start and end of each shift.

[Changes to Operating Practice](#)

- In Phase 1, access to the student machine shop won't be 24/7; it will be limited to working hours, from 8:00 AM to 4:00 PM
- The supervisors and technicians will be available to do consultations over Zoom or phone to limit the number of staff coming to the shop

[Site-specific Cleaning, Disinfection, and Wayfinding](#)

- Do not use solvents on equipment windows, touch screens, or similar items. Do not douse equipment with soap and water; use soap and water sparingly, and dry the equipment immediately after washing with a well wrung out cloth.
- The SMS users are required to wash hands before and after use of the facility

V. Shipping and Receiving

- See the departmental policy for general guidelines.
- Shipping and Receiving Room (220): No more than one (1) person is allowed to be in the room at the time
- While in the room, the person handling packages must wear gloves; also, use your own pen to sign pickup.

[To-Do List for Reopening](#)

- Remove the pen currently attached to the pad (on opening day)