

IN-CLASS TEACHING LAB COVID-19 GUIDELINE

June 10, 2021

This guideline is to be used as a companion to the “In-Class Teaching COVID-19 Guideline”, and the “COVID-19 [Infection Prevention Guidelines for Laboratories](#)”, which together provide the comprehensive guidelines required for in-class instruction in the COVID-19 era. The documents can be found on the [University’s COVID-19 Information website](#). The documents are updated as public health requirements evolve, so regular review of the COVID-19 website is strongly recommended. Departments, in conjunction with the Faculties, are responsible for assigning resources for implementing the measures outlined in these guidelines and other lab related guidelines in Appendix A. Faculties may create additional internal safety operating procedures, provided they align to the minimum standards in this document, other University guidelines and public health requirements. **All teaching labs are to create a plan based on the guidelines and submit their plan to EHS.** Any questions regarding the guidance can be submitted to EHS and RTC. Should you have additional questions after reviewing, please contact covidinfo@carleton.ca.

General Safety Measures

- All members of the Carleton community are required to follow general COVID-19 prevention measures and all mandatory public health requirements, including wearing a well-fitted mask that covers the nose, mouth and chin at all times, physical distancing, hand hygiene, respiratory and cough etiquette, mandatory self-screening prior to coming to campus daily, and using the QR codes when entering/exiting a lab.

Crush Space Congestion

- Stagger start/end times of labs, where possible, to minimize hallway and crush space congestion and queuing.
- Remind students that they should arrive promptly and not prior to 5 minutes before the start of the lab, to minimize queuing outside of the lab.

Attendance and Tracking Data

- Carleton has a QR code system available to facilitate attendance tracking for Fall 2021. To meet public health mandates, all students, TA's, lab coordinators, technicians, and instructors must register every time they enter/exit a lab space. If the QR system is not functional, the instructor must take attendance.

Lab Occupancy and Circulation

- Maximum lab occupancy will be posted and compliant with current government directives on room capacity and in person teaching.
- Designate and sign the direction of foot-traffic in main circulation paths:
 - Entries to teaching lab (e.g., if there are two doors, assign one as an entrance and one as an exit).
 - Consider one-way circulation routes throughout the teaching lab (e.g., only move in a clockwise direction when approaching bench / leaving bench).
- Physical distancing must be followed instead of reliance on extra PPE (e.g., medical grade masks, face shield and safety eyewear).
- Create protocols to maintain physical distancing (minimum 2 metres) inside the lab.

- Specify student seat assignments to ensure 2 metre distancing and ensure students are instructed to only use designated seats. Utilize markings on the bench or floor to identify where students should position themselves. Disable or remove seats that do not comply with the 2-metre rule where possible.
- Mark increments of 2 metre physical distance on floors where queues could form (e.g., where equipment is used, or materials picked up).

Inform Students About Procedures

- Instruct students in advance of performing procedures. Consider having the lab technician or a TA demonstrate procedures virtually.
- Instruct students on orderly entry and exiting. Based on the space size, allow sufficient time for students to arrive and follow the procedures, or stagger arrival times to reduce concurrent load on equipment.
- To minimize traffic and line-up congestion, ensure that student lab benches are set up prior to the lab session to have all necessary equipment and materials for the lab, where possible.
- Review the use of all shared equipment (e.g., scales, fume hoods, biological safety cabinets) and develop strategies for students to use them while avoiding congregation (e.g. instruct students to visually review the location of the equipment and if there are other students using it to wait at their bench until the equipment is no longer in use, instruct the students to sign-up to use the equipment – a TA can then be assigned to write a waiting list on the board so students know when it is their turn, etc).
- Develop protocols to ensure shared equipment (e.g., students running samples through one machine) remains sanitized, such as having each student sanitize the touch surfaces before and after each use, or having students use hand sanitizer (70% ethanol) on their hands before and after each use or wear gloves. If the above approaches are not feasible, designate a teaching assistant or technician to operate the equipment.
- Where support staff are not present (e.g., computer labs), signage and communication are to be provided outside or inside each lab on procedures.

High-Touch Surfaces / Shared Equipment / Shared Data

- Students should be instructed to thoroughly clean their lab benches and equipment set-up before they commence their lab experiments and after their experiments are complete. Provide instructions and necessary cleaning materials.
- Follow lab cleaning protocol to disinfect surfaces throughout the day and before and after each group of students come to the lab where appropriate.
- Affix signage to remind occupants to disinfect light and power switches regularly and provide disinfectant.
- Provide whiteboard cleaning solution and disposable wipes for collaboration tools.
- Encourage online platforms associated with secure data channels for data transfer.
- Use University provided online platforms like Brightspace to securely distribute teaching and learning materials, such as lab data, procedures, etc.

Contamination Control

- Storage: Encourage students to only bring what is required to the labs. Where possible add places for individuals to store and secure their own items separately from others (i.e., individual coat hooks rather than coat closets used by the group, individual lockers, individual bins).
- If PPE is reusable, there should be a bin for contaminated items (used items, for example glasses, goggles, shields) and clean items.
- Supplies: Secure supplies in storage areas and designate specific personnel (lab technicians, TAs) to manage stock and distribute items. Ensure that cleaning procedures reflect any high touch surfaces in these storage areas (locks, latches, handles, etc.).
- Deliveries: Designate one location for any deliveries to the space. For additional information, consult the Infection Prevention Guidelines for Shipping and Receiving.

Obtaining Assistance

- Clearly advise TAs and students on what is permissible in terms of interacting with each other in the lab. Advise students how to approach a TA for assistance (e.g., raise hand rather than congregate around the TA). Where it is not possible to maintain physical distancing (e.g., TA needs to provide hands-on guidance to a student), conduct appropriate PPE risk assessment with the assistance of EHS to ascertain whether extra PPE (e.g., eye/face protection, surgical or higher-grade masks, lab coats, gloves) may be required for the TA, lab coordinator and/or students.

Personal Protective Equipment (PPE)

Ensure that you have sufficient stocks of PPE and cleaning supplies prior to the Fall semester commencing. These items are still in high demand and more difficult and expensive to procure than in previous years.

For more information regarding the University's COVID-19 Mask Policy, please visit the [Mask Guidance webpage](#). For questions regarding accommodation, please contact covidinfo@carleton.ca or speak to your supervisor.

When wearing a mask or face covering, the presence of hazardous materials (e.g., biological agents, flammables, and ignition sources) should be considered accordingly. If the lab is working with hazardous materials, please confirm with EHS regarding proper PPE.

Lab coats should be worn to protect street clothes from contamination where applicable. Lab coats must be removed prior to leaving the lab.

General information about donning and doffing PPE is below. These procedures should be communicated to lab coordinators, TAs, and students regarding wearing PPE as appropriate. Teaching labs should assess the level of PPE required for the experiments. Contact EHS if you have any concerns about the order of donning/doffing for additional PPE.

Wash/sanitize hands after removal. If your hands become contaminated during PPE removal, wash/sanitize before removing the rest of your PPE.

1. Donning PPE Sequence
 - a. Perform hand hygiene.
 - b. Put on any additional face mask (where applicable, based on type of work or facility engineering control)
 - c. Put on eye/face protection (where applicable)
 - d. Put on lab coat (where applicable)
 - e. Put on gloves (where applicable)
2. Doffing PPE Sequence
 - a. Remove gloves (to avoid contamination, follow [Public Health Ontario's Steps](#))
 - b. Perform hand hygiene.
 - c. Remove eye/face protection and wipe with disinfecting cloth.
 - d. Remove any additional face mask by grasping bands that go around head or ears – do not touch the front of the mask. Dispose of face mask in garbage.
 - e. Remove lab coat and place on assigned hook, and/or if done for the day into plastic bag for laundering.
 - f. Perform hand hygiene.

Training

- Traditional in-class laboratory safety training shall be provided in accordance with physical distancing protocols in place. Ideally, this training will be conducted virtually.
- Safety orientation for each practical session should include review of COVID-19 precautions and infection prevention and control procedures.
 - Avoid touching your face, nose, or mouth with unwashed hands.
 - Wash your hands often and thoroughly with soap and water or alcohol-based hand sanitizer.
 - Practice proper respiratory etiquette, such as sneezing and coughing into your elbow.
 - Do not shake hands.
 - Maintain physical distancing of two metres or more.
 - Stay home if you are sick.
- To support the above strategies, conspicuously post the University COVID-19 posters.
- Reminders provided at the beginning of each laboratory session that some procedures might have changed and to always respect the 2-metre physical distancing rule.

For guidance on restarting a lab after a closure, please consult the Infection Prevention Guidelines for Laboratories.

Non-Compliance

Everyone in the laboratory is required to comply with public health requirements and the University's policies and procedures to ensure a safe environment. No person shall knowingly create a condition that endangers the health or safety of other persons. The following steps should be followed if a student does not comply with physical distancing or other COVID-19 procedures. These steps follow existing processes for non-compliant behaviour in a classroom.

- A student in non-compliance should be dealt with in a stepped approach, whereby the instructor first speaks with the student. If the student does not comply with the request or guidance, the instructor should connect with Campus Safety who will triage the incident.
- If the behaviour is repeated, Step 1 is to be followed and the instructor should also elevate the matter to the Chair/Director and Student Affairs, who will engage with the student. If necessary, Student Affairs will consider the Student Rights and Responsibilities.

Student Illness Procedure

Steps to follow when a student feels ill during instruction and requires assistance:

- Request that the student with symptoms immediately leave campus and self-isolate;
- Remind the student to complete the symptom reporting tool and, if student is also an employee, remind them to also email/phone their supervisor/manager.
- If the student is incapable of leaving the laboratory, contact Campus Safety at 4444. Establish, a safe, designated isolation area for the student to wait that is at least 2 metres away from you and other students until CSS and EMS arrive.