

COVID-19 Specific Safety Policies and Protocols for Laboratory Based Research

This document was developed to provide clarity on expectations for a safe ramp-up of laboratory-based research activities in Forney Hall of Chemical Engineering (FRNY). All research (e.g., computational) that can be performed remotely will continue to be done remotely until further notice. This document contains Covid-19 specific safety policies and protocols in place for FRNY, introduced by the Chemical Engineering (ChE) Safety Committee and enforced throughout the building. These policies and protocols are meant to give specific instructions applicable to FRNY and to complement the general policies and guidelines provided by Purdue University (including the information in the Purdue Chemical Hygiene Plan). The policies in this document are compliant with Purdue's policies, and thus might contain some overlap; stricter policies may be implemented by each PI for their group, but these must remain compliant with Purdue's policies. This document also contains relevant links to important information provided by the Centers for Disease Control and Prevention (CDC) and Purdue University; you are encouraged to access these links and read the information. Be aware that this document can be updated often, therefore check regularly for updates.

Please read the entire document, as reading, understanding and agreeing to comply with the information in this document is an integral part of the safety training that needs to be completed for return to laboratory-based research activities in FRNY.

The document is divided in 4 (four) main parts:

- A. Items to be completed before returning to campus (must be completed remotely)
- B. What to do upon returning to campus (FRNY)
- C. Safety protocols during active research in ChE Labs
- D. Safety procedures in the unfortunate case of a suspected or confirmed Covid-19 case in your group

1. Items to be completed before returning to campus (must be completed remotely)

- A. **Training:** Complete the “*ChE Return to Campus Safety Training*” by following these steps:
 - a. Complete the Covid-19 On-Site Specific Safety Training provided by Purdue, (<https://www.purdue.edu/ehps/rem/worker/COVID-19%20Resources.html>) and log your training at the link below the training material (Training Sign-in Form (Qualtrics)). Save a PDF copy of the email received upon completion.
 - b. Complete the ChE specific Annual Safety Refresher Training module (including the quiz) relevant for your role in the School and save a PDF copy of the email received upon completion of training. (<https://engineering.purdue.edu/Intranet/Groups/Schools/ChE/SafetyTraining.html>).
 - c. Complete the training on the Covid-19 Research Space SOP for your lab(s) and document the training (sign and date the relevant part of the SOP).
 - d. Complete the Lab Specific Chemical Hygiene Plan (CHP) training by reviewing your lab's CHP and all applicable SOPs relevant to your research.
 - e. Complete the CHP Certification; page 87 of the CHP template posted on REM's website: <https://www.purdue.edu/ehps/rem/documents/programs/chp2014.pdf>.
 - f. Read this document in its entirety.
 - g. Complete “Training sign-in sheet” located on ChE Safety Website, under the “Training” section.

B. Prepare a “Safe ramp-down of research operations” document, and be ready to implement the measures stated in this document. A sample of a [Research Laboratory Ramp-Down Checklist](#) is available at <https://protect.dev.purdue.edu/research/>.

C. Health self-assessment and coordination with PI, safety officer(s) and other group members.

Before coming to campus **confirm that**:

- a. You were not exposed to any confirmed or suspected case of Covid-19 patient and do not exhibit any [COVID-19 symptoms](#). Only come to campus if you are healthy and do not feel sick.
- b. You have a suitable cloth face covering to enter the building. Everyone entering a campus building must wear a face mask, as described in the [Purdue University Required COVID-19 Protocols](#). Please review this document. For more information about cloth face coverings, including proper maintenance, please [follow this link](#).
- c. The lab has the necessary Covid-19 specific PPE (nitrile gloves, face masks) and cleaning/disinfecting supplies (e.g.: hand sanitizer) available for you. These items are provided by Purdue, and can be sourced from Materials Management and Distribution Center (MMDC) Surplus Store. The items are ordered/reserved by the safety officer or a designated member of your group. To order safety supplies [use this link](#) and follow instructions provided.
- d. The lab is labeled “**Green**” in accordance with Purdue regulations, meaning the lab complies with the University protocols and is open for research. Your PI and safety officer should be able to confirm this with you.
- e. You secured a time interval to be in the lab, according to the scheduling procedure used by your group. Scheduling of shifts should consider the setting and organization of the lab, as well as the maximum occupancy set (120 sq. feet/person needed).
- f. Please always be patient and courteous with others, and understanding, as everyone is managing their own personal situation and concerns while returning to work during this public health crisis. When scheduling your shift, be mindful of other researchers who want to use the lab; everyone wants to progress with their research.
- g. Following the shift schedule will be enforced at lab/group level. To maximize your time in the lab, plan your experiment before coming to campus.
- h. To minimize the time spent in the building and on campus, and potential exposure to the virus, plan to leave the campus when your shift is over. All tasks that can be conducted remotely (e.g., data analysis, reading, writing, meetings with PI/group members/collaborators) should be conducted remotely.
- i. On the day when you are scheduled to be on campus, ensure that you are dressed appropriately for working in the lab (i.e.: long pants or equivalent, closed toe shoes).

2. What to do upon returning to campus (FRNY)

- a. Make sure you wear a suitable face covering when you enter the building. Keep the face covering on at all times when you are in public areas. More information on face coverings is [available here](#).
- b. Behave as everyone you see were infected (including yourself). This is needed to help protect the safety and health of vulnerable people in our community.
- c. Upon entering the building (via one of the designated entrances) disinfect your hands at the hand sanitizer station located near the entrance and read the notices posted in the building.
- d. Observe the markings on the floor and follow the patterns for walking in the building to get to your office space. Ensure maximum occupancy set for your office is not exceeded and 6 ft. social distancing is maintained (wear your face covering/mask if you are not alone in the office).

- e. The use of stairs is recommended to travel to/from upper floors. If you have a medical condition or you transport items and need to use the elevator, observe the safety notices posted near the elevator. The maximum occupancy for elevators is 1 (one) person.
- f. Observe the new social distancing signage posted in public areas in the building (e.g.: restrooms, seating space in the Atrium, maximum occupancy for conference rooms and shared offices). Keep a distance of minimum 6 ft. when you interact with others in the building.
- g. It is recommended that labs with 2 doors designate one door for entering, and one door for exiting the lab. Observe the potential pattern set for entering and exiting the lab and the signage posted.
- h. Hallways are still considered public spaces, thus **the “One glove policy” is still enforced in the building**. No PPE other than face masks should be worn in public areas outside of areas clearly identified as “One glove policy” areas.

3. Safety protocols during active research in ChE Labs

- a. Upon entering the lab, clean and disinfect your hands according to the [current CDC guidelines](#) (this means washing your hands with soap and water for 20 seconds, or using the hand sanitizer located near the entrance) before putting on the research specific PPE (safety glasses, safety gloves, lab coat). The use of a face covering is required when more than one person is in the lab.
- b. Your work area in the lab is most probably a shared area. Clean/sanitize your work area (including instruments/apparatus, keyboard, desk, mouse, pens and pencils, etc.), and dispose of the contaminated paper tissues appropriately (in the hazardous solid waste container).
- c. Conduct experiment as planned.
- d. Observe social distancing (min. 6 ft.) at all times (as much as possible) with the rest of the lab occupants. Limit activities that necessitate a close contact with other lab occupants. If this is not possible due to the nature of the research or if team work is necessary, use engineering controls, or additional PPE (as identified in your lab’s Covid-19 specific SOP) to account for the lack of compliance with the 6 ft. social distance limit.

Note: Performing such work first requires understanding and voluntary informed consent by the researchers engaging in teamwork

- e. Before you leave the lab, clean and disinfect the work area and other frequently touched items/surfaces with appropriate cleaning/disinfectant products (supplied by the University) and dispose of the contaminated paper tissues accordingly (hazardous solid waste).
- f. Log the end time of your shift, and the time of cleaning/disinfecting in the lab log book. Remove and store/dispose of research specific PPE, wash your hands and leave the lab via the door designated as exit door. Keep the face covering on, as this is required at all times while in public areas in campus buildings.

NOTE: It is important to understand the difference between “Cleaning” and “Disinfecting.” (more information on cleaning and disinfecting is [available here](#)):

- **Cleaning** is the removal of dirt and impurities from surface. It does not kill germs but can possibly spread germs from one surface to another surface.
- **Disinfecting** is the use of chemicals to kill germs on surfaces. It does not necessarily clean but kills germs and can further lower the risk of spreading infection. Each disinfectant has its own ‘kill time’ thus pay attention to the type of product used and follow the recommendations on the container if you use a commercially available product (the University provides alcohol-based disinfectant which will disinfect the area in less than one minute).
- If surfaces are dirty, they should be cleaned using common cleaning products such as detergent or soap and water prior to disinfection. All used wipes should be disposed of in the solid

hazardous waste container immediately after use.

- g. Retrieve your personal items stored in your office. Practice social distancing while in public areas in the building and follow the minimum 6 ft. distance rule if you interact with others in the building.
- h. Leave the building via one of the designated exit doors and continue practicing social distancing at all times.

4. Safety procedures in case of a suspected or confirmed Covid-19 case in your group.

Although controls are put in place, the risk of contamination is not totally eliminated. Therefore, you should behave at all times as if everyone (including you) were infected. You should always be prepared for a potential situation when there is a suspected or confirmed case of Covid-19 in your group.

- a. If you are the affected person, follow the steps and recommendations in the information available at <https://coronavirus.dev.purdue.edu/health-and-wellness/>.
- b. If you are aware that someone in your group is a suspected or confirmed case of Covid-19, report it to your PI as soon as possible, so proper safety measures can be implemented in a timely manner (deep cleaning and disinfection of lab and office space) and the University protocols are followed promptly.
- c. In the unfortunate case that the lab and/or the building/university needs to enter again in lockdown for an unforeseeable time due to community spreading of the virus, be prepared to ramp-down the lab operations at short notice.

Remember that this document will be updated regularly, as more information becomes available, or as the situation changes (restrictions can be relaxed or lifted, or safety procedures and protocols can become stricter). Therefore, check for updates often, as the official version of this document will only be maintained online. Practice social distancing, wear your face covering, practice good hygiene and do your best at keeping yourself, your peers and everyone else in our ChE and Purdue community safe while still progressing with your research projects.

Should you become aware that others don't follow the safety protocols required by Purdue University and the safety policies and protocols in this document, **it is your responsibility** to address this issue directly with the noncompliant person, and bring the issue to your PI's attention and/or to the attention of the ChE Safety Committee Chair, Gabriela Nagy (nagy@purdue.edu). Noncompliance with the University set rules and with the safety protocols/policies in this document may result in dismissal from on-site work until social distancing guidelines are lifted.