SAFETY PLAN FOR CHE 490 IN-PERSON LABS (FALL 2020)

Instructor/Manager: John Zhang

Laboratory Location: DWE 1513, 1514, 1519, 1520, and 2526

INTRODUCTION

The following is the safety plan for delivery of in-person lab for course ChE 490 in Fall 2020. It is based upon the hierarchy of controls model of risk management. The premise is to prioritize and implement controls that are known to be most effective (removing/eliminating exposure vs using PPE). Figure 1 depicts this model using COVID-19 specific controls.

![Hierarchy of controls as it applies to COVID-19](image)

**PURPOSE**

This document has been designed to assist principal investigators and lab directors in establishing appropriate protocols to minimize risk for work occurring during COVID-19.
PART A

1.0 RESEARCHER TRAINING

Before coming back to campus, employees, students and researchers must complete the following training:

- Mandatory “Return to Campus Safety during COVID-19” (SO 2036) online training
- Training from the PI on the new practices outlined in this procedure

2.0 RESPONSIBILITIES

2.1 SUPERVISORS

- Meet with working group members before allowing them access to the lab. Orientation shall cover all items within this plan.
- Develop this plan to meet Workplace Health & Safety Guidelines for COVID-19.
- Enforce all criteria within this plan.
- Ensure appropriate hand hygiene and surface disinfection supplies are provided for employees.
- Physically visit and inspect the laboratory monthly to:
  - Identify hazards as per the Occupational Health and Safety Act
  - Ensure the adequacy and adherence to this safety plan.

2.2 EMPLOYEES AND STUDENTS

- Follow all guidance within this plan.
- Work from home for all tasks that do not need laboratory access.
- Review and sign declaration that all COVID19-safety training materials are understood and will be followed during lab days and that you are feeling healthy enough to attend campus (available on LEARN).
- Complete self-assessment on day of lab prior to arriving at DWE. Do not come on campus if feeling ill. If you start to feel ill during a lab session, inform instructor and immediately leave the lab; seek medical attention at Health Services if needed (call 519-888-4096 or visit facility).
- Enter DWE building within 5 minutes of assigned lab time. Wait in hallway by entry door for instructor/TA to bring you into lab. Line-up so that hall traffic can continue to pass with safe distancing. Keep 6 ft (2m) apart from each other and 6 ft from any doorways (follow floor markings).
- Leave personal items not needed for lab in hall locker (administered by Engsoc) or other secure location.
• Notify the lab instructor if supplies are not sufficient to maintain hand hygiene and surface decontamination requirements
• Notify the supervisor of any hazards that are discovered while working
• Leave building immediately after lab session.
• Report any flu-like illness experienced within 14 days after attending a lab session to the lab instructor using the process outlined in Section 4.2.2.

3.0 HEALTH PROTOCOLS

3.1 SELF-ASSESSMENT SCREENING
To minimize risk, workers and students must not come to campus when ill. For this reason the University requires that employees and students monitor themselves daily for symptoms of influenza-like-illness. The COVID-19 self-assessment tool, found in the WatSAFE app or on the University’s Health & Travel Guidance site, provides clear directions on how to self-assess. WatSAFE has link to Regional public health self-assessment, no personal data collected. Employees and students will also be reminded to conduct self-assessment at building entrances.

3.2 ILLNESS AND ABSENCE REPORTING
All employees (teaching assistants) must be aware of the symptoms and the importance of reporting symptoms and/or absences to their supervisors or delegates before the beginning of the first day absent.

Students and teaching assistants must not attend the lab session if they are ill and must leave immediately at signs of any illness. Inform the TA/lab instructor if you become ill during or after a lab session.

4.0 HAND HYGIENE
Hand hygiene should be performed regularly throughout the day. At minimum workers shall wash hands or perform hand sanitization when:

• They enter or leave a new space
• When they remove gloves
• After using shared equipment
• If hands are soiled (dirt, debris, oils, grease, and other contaminants), hand sanitizers will not be effective. Use soap and warm water in these cases.
• If work consistently causes hands to be soiled, hand washing facilities need to be provided and accessible (sink and soap).
• Hand washing is the preferred method of hand hygiene at UW.
All TAs will be trained and signage about hand hygiene will be posted. TAs will be instructing all students to wash their hands upon entering the lab and then proceed to their assigned work station. Sanitizer is only used in areas where there are no sinks.

### 5.0 GROUP PROTECTIVE EQUIPMENT

If physical distancing is practiced, additional group protective equipment (GPE)/personal protective equipment (PPE) will not be required. Should physical distancing not be possible for specific tasks or specific situations, cloth face coverings can be used.

More information regarding other protective equipment:

- Gloves are not required where there is no human contact. Gloves shall not be used in hallways (this rule has not changed). Hand hygiene is more effective.
- Respirators and surgical face masks are not recommended for general use to protect the public against one another. In cases where physical distancing of 2 m is not possible, face coverings (cloth masks) can be used.
- Rubber gloves for cleaning glassware can be shared if proper hand hygiene is performed before and after use.
- Face shields, safety glasses, safety goggles, half-mask respirators, and welding masks should be individually provided and wiped with a disinfectant before and after each use.
- Chemical aprons should be wiped with disinfectant before and after each use.
- Lab coats should be designated to an individual. Washing is only required when they have been soiled.

### 6.0 WASTE DISPOSAL

1. Non-hazardous waste will be removed from labs by custodial services as per the schedule used before COVID-19.
2. Hazardous waste should be handled and removed according to the hazardous waste guidelines.

**Note:** Due to COVID-19 and physical restrictions in the Environmental Safety Facility (ESF), open hours no longer exist. Waste must now be scheduled using the online calendar. Information on this calendar can be found here.

### 7.0 RELATED PLANS THAT MUST BE REFERENCED

#### 7.1 LABORATORY SHUTDOWN PLAN

A Laboratory Shutdown Plan is one that assigns responsibility to various individuals within your group to ensure the tasks in the Laboratory Ramp-Down & Temporary...
Shutdown Checklist can be accomplished on short notice. This is to ensure a laboratory can be closed for an extended period of time.

**7.2 WORKING ALONE PLAN**

Depending on the work being undertaken, and if employees or students will be expected to work alone, a working alone plan may be required. To determine if you need a plan refer to UW’s Working Alone Guide.

**PART B**

Instructor/Manager: John Zhang    Laboratory Location: DWE 1513, 1514, 1519, 1520, and 2526

**1.0 ELIMINATION OF NON-CAMPUS RELATED WORK**

Eliminating the hazards is the best means of ensuring that risk is minimized. In the table below lists the work that needs to done remotely versus work on campus.

<table>
<thead>
<tr>
<th>Remote work</th>
<th>Campus work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course set-up and administration.</td>
<td>Training of in-lab TAs</td>
</tr>
<tr>
<td>Answering questions/meetings with students (Teams, Webex)</td>
<td>Preparations of lab experiments</td>
</tr>
<tr>
<td>Training TA for and administering of computer-based learning tutorials.</td>
<td>Running in-person lab sessions and livestreaming lab sessions</td>
</tr>
<tr>
<td>Post-lab data analyses and report writing</td>
<td></td>
</tr>
</tbody>
</table>

*To be clear, all work that can occur remotely should be conducted remotely.*

**2.0 WORKER TRAINING**

Prior to coming back to campus, lab instructor, coop lab assistants, teaching assistants (TAs), and students must complete the following training:

- Complete the mandatory “Return to Campus Safety during COVID-19” (SO 2036) online training
  - TAs send copy of course completion to lab instructor
  - Students submit course completion acknowledgement on UW LEARN
• Complete orientation of new practices outlined in this procedure by the lab instructor
  o TAs send signature at end of procedure
  o Students submit signature on UW LEARN

3.0 RESPONSIBILITIES

3.1 SUPERVISORS

• Meet with working group members before allowing them access to the lab. Orientation shall cover all items within this plan.
• Develop this plan to meet Workplace Health & Safety Guidelines for COVID-19.
• Enforce all criteria within this plan.
• Ensure appropriate hand hygiene and surface disinfection supplies are provided for employees.
• Physically visit and inspect the laboratory monthly to:
  o Identify hazards as per the Occupational Health and Safety Act
  o Ensure the adequacy and adherence to this safety plan.

3.2 EMPLOYEES AND STUDENTS

• Follow all guidance within this plan.
• **Work from home** for all tasks that do not need laboratory access.
• Review and sign declaration that all COVID-19-safety training materials are understood and will be followed during lab days and that you are feeling healthy enough to attend campus (available on LEARN).
• Complete self-assessment on day of lab prior to arriving at DWE. **Do not come on campus if feeling ill.** If you start to feel ill during a lab session, inform instructor and immediately leave the lab; seek medical attention at Health Services if needed (**call 519-888-4096 or visit facility**).
• Enter DWE building within 5 minutes of assigned lab time. Wait in hallway by entry door for instructor/TA to bring you into lab. Line-up so that hallway traffic can continue to pass with safe distancing. Keep 6 ft (2m) apart from each other and 6 ft from any doorways (follow floor markings).
• Leave personal items not needed for lab in hall locker (administered by Engsoc) or other secure location.
• Notify the lab instructor if supplies are not sufficient to maintain hand hygiene and surface decontamination requirements
• Notify the supervisor of any hazards that are discovered while working
• Leave building immediately after lab session.
• Report any flu-like illness experienced within 14 days after attending a lab session to the lab instructor using the process outlined in Section 4.2.2.

4.0 HEALTH PROTOCOLS

4.1 SELF-ASSESSMENT SCREENING

All TAs, coop lab assistants, and students must complete COVID-19 self-assessment tool the day(s) they attend in-person labs. The instructor will ask and remind about self-assessment at lab entrance for TAs. The TA will ask and remind students about self-assessment at the lab entrance.

4.2 ILLNESS AND ABSENCE REPORTING

4.2.1 EMPLOYEE COVID19 REPORTING (Instructor, lab TA, and Co-op Lab Assistant)

All employees must be aware of the symptoms and the importance of reporting symptoms and/or absences to their supervisors or delegates before the beginning of the first day absent. Due to COVID-19, all absences should be reported to the manager. Confidentiality of personal information will be maintained at all times.

4.2.2 STUDENT COVID19 REPORTING

Attendance at in-person lab sessions are optional; the same experiments may be completed via the online version. Attendance in in-person lab sessions will be recorded. Students who are experiencing COVID19 symptoms must not come on campus.

The lab session protocol outlined herein is intended to prevent person-to-person transfer of the COVID19 virus while working in the lab. However, if you experience COVID19 symptoms within 2 weeks after having attended a lab session:

• Contact your local health authority for medical support and guidance.
• Inform the lab instructor asap
• Your full name and contact info (as well as name of health authority contacted and date of contact, if available) will be passed to the University’s Medical Director and Associate Provost- Students who will determine next steps required: https://uwaterloo.ca/coronavirus/return-campus/workplace-health-and-safety-guidance/health-protocols#student-disclosure

For academic accommodation while you are ill, you can self-declare a COVID19 illness in Quest. For further instructions, refer to: https://uwaterloo.ca/quest/help/students/how-do-i/self-declare-my-illness
5.0 HAND HYGIENE
Hand hygiene should be performed regularly throughout the day. At minimum lab workers shall wash hands or perform hand sanitization when:

- They enter or leave a new space
- When lab gloves are removed
- After using shared equipment (if wearing gloves when using shared equipment, remove and dispose. Replace with fresh pair, if needed.

NOTE: If hands are soiled (i.e. dirt, debris, oils, grease, and other contaminants), hand sanitizers will not be effective. Use soap and warm water in these cases.

- A sink, liquid soap, paper towels and garbage bin are available in all labs.
- Hand washing is the preferred method of hand hygiene at UW.
- Hand sanitizer will be provided by entry/exit of each lab.

All TAs will be trained and signage about hand hygiene will be posted. TAs will be instructing all students to wash their hands upon entering the lab and then proceed to their assigned work station. Sanitizer is only used in areas where there are no sinks

5.0 GENERAL PROTECTIVE EQUIPMENT
If physical distancing is practiced, additional PPE is not typically required. However, as per University guidelines, all attendees must wear face coverings (e.g. cloth or surgical masks or face shield) when inside university buildings. Details on other general protective equipment are below:

- Students and TAs should bring their own safety goggles, lab coat and cloth mask to the lab session. Please wear mask once you enter the building and when waiting in hallway to access lab. Spare lab coats/goggles will not be available in the labs as these items cannot be shared.
- Face shields and safety glasses will be provided to individuals as needed. They must be wiped with a disinfectant before and after each use.
- Forehead temperature may be measured using a non-contact IR temperature scanner prior to entering the lab space. Anyone with a temperature above 38°C or 100.4°F or who appears to be severely ill will not be permitted to enter the lab. If you are experiencing a fever, please stay home and send an email to inform lab instructor that you are opting to complete the online version of lab instead.
- Where there is no human contact, gloves are not required to protect against COVID-19 (i.e. study participant). Hand hygiene is more effective than use of gloves for protection against COVID-19. **However, lab gloves are required when working with chemicals in the lab.** Nitrile Gloves are provided in the lab. Gloves shall not be used in hallways (this rule has not changed). Sinks are
available near exits. Hand sanitizer will be available in the lab at sinks and near shared equipment/lab computers that are common high contact points.

6.0 ADJUST THE WORKPLACE - PHYSICAL DISTANCING

Physical distancing is the next best way to reduce risk. To ensure 2 m physical distancing can be maintained, two main tools will require implementation:

- Occupancy limits and traffic-flow
- Scheduling work

7.0 OCCUPANCY LIMITS AND TRAFFIC FLOW

The senior lab course involves individual lab groups of maximum 4 students working with a set of specialized equipment in a pre-scheduled lab session. All the eleven equipment units are arranged in five different lab rooms so the required physical distancing can be maintained for all the lab sessions. The maximum occupancy, designated equipment for each lab, expected lab attendees in the course are listed in Table 1.

Table 1. Maximum occupancy, designated equipment for individual lab, maximum lab attendees for ChE 490 lab rooms.

<table>
<thead>
<tr>
<th>Lab Room</th>
<th>Maximum Occupancy</th>
<th>Expected Maximum Attendees</th>
<th># of Lab Equipment Units*</th>
<th>Lab Equipment Location**</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWE 2526</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>E4: left-side end of the room. A1: right-end of the room</td>
</tr>
<tr>
<td>DWE 1520</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>E6: left-side far corner. C2: left-side far corner across the room.</td>
</tr>
<tr>
<td>DWE 1519</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>A3: right-side far corner</td>
</tr>
<tr>
<td>DWE 1513</td>
<td>9</td>
<td>8</td>
<td>2</td>
<td>E3, B1, B2: left-side far corner (the same unit). E5: right-side end. C1: in the middle of the room.</td>
</tr>
<tr>
<td>DWE 1514</td>
<td>9</td>
<td>8</td>
<td>2</td>
<td>E1: right-side far corner. E2: right-side middle. A2: right-side far corner across the room.</td>
</tr>
</tbody>
</table>
* Maximum number of labs in any given lab session or on any lab day.
** Lab E1, E2, E3, E4, E5, and E6 are regular lab experiments and Lab A1, A2, A3, B1, B2, C1, and C2 are project-based labs.

The following room diagrams show the exact location of individual lab experiments and traffic direction to access the equipment and exit the lab rooms.
• Students will be admitted to lab at staggered times to avoid line-ups in hallway outside lab entrance and to allow TA to provide instruction/demo to each student in timely manner. Please report to lab entrance at your designated entry time. Students should enter building no sooner than 10 minutes prior to designated entry time. If early, students should wait along hallway near the lab room. Line-up close to wall so that hall traffic can continue to pass with safe distancing. Maintain 6 ft (2m) apart from each other and 6 ft from any doorways or follow markings on floor/wall.

• Cloth facemask are required to be worn inside common spaces of buildings (https://uwaterloo.ca/coronavirus/return-campus/masks-or-other-face-coverings-are-required-campus). Also bring your own lab coat and goggles. These items cannot be shared.
  NOTE: Personal belongings like knapsacks are not permitted to be stored in the lab space. Do not bring extra items on campus/arrange with Engsoc to use a hallway locker in DWE.

• Within lab, obey one-way traffic flow directions indicated on map above. Enter lab and head up aisle towards your assigned equipment unit.

• During lab session, wear cloth mask and work within your assigned workspace. Maintain 6ft (2-m) distancing from others including TA/lab assistant/instructor as much as possible. Students can enter/exit their aisle from ends as long as they maintain 2-m distance from other students at shared equipment locations.

• Switching workstations during a lab session should be made while maintaining physical distancing. Disinfection will be completed at the beginning and end of the lab session and supplies provided if students choose to disinfect when switching workstations.

8.0 WORK SCHEDULES

All the five lab rooms above in DWE will be exclusively used for ChE 490 in Fall 2020, and the following additional measures will be taken when scheduling all the in-person labs.

• There are two dedicated time slots for the course in which there are no other lab activities in DWE:
  Tuesday, 2:30~5:30 pm
  Thursday, 2:30~5:30 pm

• Only one lab group will be scheduled in DWE 1519, DWE 1520, and DWE 2526 in any lab session, and one or two lab groups for DWE 1513 and 1514. The lab schedule for the term will be available to students and TAs in the second week of the term.

• Lab preparation by coop student or TA must be performed outside of scheduled labs and will be arranged by the lab instructor.
• Office work will be done at home.
• Meetings with students/TAs should be held virtually via WebEx or MS Teams. Students should not visit the lab instructors’ office.
• Students should do all lab report writing work at home.
• Instructor/Co-op Lab Assistant/TA should follow Working Alone Guidelines, if applicable.

9.0 OTHER CONSIDERATIONS FOR PHYSICAL DISTANCING

1. The labs in ChE 490 include regular labs and project-based labs. The first regular labs will run for two weeks in mid-September, then the project-based labs will run for two weeks in mid-October, and the second regular labs will run two weeks in mid-November. As well, all the 11 sets of equipment for both the regular labs and the project-based labs are adequately separated in the five lab rooms. This arrangement ensures that the attendee in each lab room and in any given lab session will be below the maximum occupancy limit and physical distancing can be easily enforced as shown above.

2. As the in-person labs are optional in the course, the number of expected maximum attendees should be no more than 75% of a lab group of 4 along with a TA or instructor or a coop student.

3. All the labs involve pilot-scale lab experiment where students and TA operate the equipment on computer or on separate parts of the equipment, as such, the following general safety guidelines should be applied and followed for all the labs and lab attendees:
   1. Access the designated lab room and equipment as shown in Table 1 and map above and wear a mask.
   2. Sanitize hands using hand sanitizer on the lab bench at the entrance of lab room.
   3. Select and wear proper gloves throughout the lab session, and other lab PPE such as safety glasses and lab coat.
   4. Operate equipment as per TA’s instruction. All the general lab safety rules in the lab manual must be strictly followed throughout each lab session.
   5. Whenever there is a lab operation need for two people to work closer than 2 meters, the two people must check and wear masks and gloves properly, and replace gloves afterwards.
   6. Apply disinfectant to any surface whenever necessary during the duration of the lab experiment.
   7. At the end of the lab, students will be expected to clean and disinfect their work areas. Before exiting the lab room, gloves will be removed and disposed of as well as lab coats be removed. Students will be required to wash or sanitize hands before leaving the laboratory.
10.0 WORK SURFACE AND EQUIPMENT DECONTAMINATION

Surface decontamination within the laboratory is the responsibility of all the lab attendees. At minimum most surfaces should be disinfected twice per day. The table below outlines decontamination plans for the lab.

All students can disinfect and wipe down all shared work stations before and after use. This includes lab bench, anything touched, and lab seat. Contact time for disinfectant is 2 min and it may need to be sprayed again if it begins evaporating.

Table 2: Shared equipment disinfection details.

<table>
<thead>
<tr>
<th>Equipment Identifier</th>
<th>Disinfectant</th>
<th>Concentration</th>
<th>Contact time</th>
<th>Frequency of disinfection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fumehoods</td>
<td>Molloy 75% alcohol</td>
<td>As received</td>
<td>2 min</td>
<td>Before and after lab session</td>
</tr>
<tr>
<td>Lab benches</td>
<td>Molloy 75% alcohol</td>
<td>As received</td>
<td>2 min</td>
<td>Before and after lab session</td>
</tr>
<tr>
<td>GC workspace and computer</td>
<td>Molloy 75% alcohol, alcohol cleaning towelette, or Certainty disinfectant wipes</td>
<td>As received</td>
<td>2 min</td>
<td>Before and after lab session</td>
</tr>
<tr>
<td>Waste containers</td>
<td>Molloy 75% alcohol</td>
<td>As received</td>
<td>2 min</td>
<td>Before and after lab session</td>
</tr>
<tr>
<td>Sink area</td>
<td>Molloy 75% alcohol</td>
<td>As received</td>
<td>2 min</td>
<td>Before and after lab session</td>
</tr>
</tbody>
</table>

Notes on surface disinfection:
  a. Ensure the disinfectant chosen is appropriate for the surface being disinfected.
  b. Ensure there is enough disinfectant to last the workweek.
  c. All work surfaces should be decontaminated twice daily. In most situations, this means before work begins and once work has concluded.

11.0 HIGH TOUCH AREA DECONTAMINATION

All high-touch surfaces should be disinfected twice daily. Designate responsible persons and a schedule for this to be done. Complete the table below for your research areas:
Table 3: High touch surface disinfection summary table.

<table>
<thead>
<tr>
<th>Item Identifier</th>
<th>Disinfectant</th>
<th>Responsible Person</th>
<th>Schedule</th>
<th>Frequency of disinfection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doorknobs, push bars, handles</td>
<td>Molloys 75 % alcohol</td>
<td>Coop student</td>
<td>Twice daily</td>
<td>Monday and Friday</td>
</tr>
<tr>
<td>Cupboard knobs and handles</td>
<td>Molloys 75 % alcohol</td>
<td>Coop student</td>
<td>Twice daily</td>
<td>Monday and Friday</td>
</tr>
<tr>
<td>Faucets and tap handles</td>
<td>Molloys 75 % alcohol</td>
<td>Coop student</td>
<td>Twice daily</td>
<td>Monday and Friday</td>
</tr>
<tr>
<td>Lab phone</td>
<td>Molloys 75 % alcohol</td>
<td>Coop student</td>
<td>Twice daily</td>
<td>Monday and Friday</td>
</tr>
<tr>
<td>Light switches</td>
<td>Molloys 75 % alcohol</td>
<td>Coop student</td>
<td>Twice daily</td>
<td>Monday and Friday</td>
</tr>
<tr>
<td>Keyboards and mice</td>
<td>Mild disinfectant</td>
<td>Coop student</td>
<td>Twice daily</td>
<td>Monday and Friday</td>
</tr>
</tbody>
</table>

Review the link for more information on the disinfection of surfaces:

12.0 WASTE DISPOSAL

1. Non-hazardous waste will be removed from labs by custodial services as per the schedule used prior to COVID-19.
2. Hazardous waste should be handled and removed according to the hazardous waste guidelines.

**Note:** Due to COVID-19 and physical restrictions in the Environmental Safety Facility (ESF), open hours no longer exist. Waste must now be scheduled using the online calendar. Information on this calendar can be found here.

13. SHUTDOWN PLAN

A printed copy of the Laboratory Ramp-Down & Temporary Shutdown Checklist related to ChE 490 is available in the instructor’s office and John Zhang is responsible for implementing it.

In the event that a lab must be shutdown suddenly, follow the following instructions.
Each student must complete the following before leaving the lab:
- Ask TA for instruction about equipment shutdown, and take necessary action.
- Dispose of all chemical waste in designated waste buckets.
- Wipe down all equipment, tools, and workbench with 70% alcohol solution and paper towel/Kimwipe. Dispose of towel/wipe/gloves in garbage.
- Wash up and leave lab.

The TA must complete the following before leaving the lab:
- Supervise students and provide guidance as needed to shutdown the equipment and dispose of any chemical waste.
- Provide any instructions on changes to lab assignment to students and get students out of lab quickly and safely while maintaining 2m distancing.

The Co-op Lab Assistant must complete the following before leaving campus:
- Check all the lab equipment, apparatus, and gas cylinders are properly turned off or closed.
- Check that all lab windows are closed and locked.
- Check that all water lines are closed.
- Remove any chemicals from the fumehoods and place in appropriate storage location.
- Assist with waste collection/labeling.
- Assist lab instructor with final disinfection/shutdown procedures

Lab Instructor must complete the following before leaving campus:
- Disinfect high contact points in lab space and wipe down workstations.
- Arrange for disposal of lab waste to Hazardous Waste Facility.
- Remove any items that will spoil over short term from refrigerator. Check that refrigerator/freezer doors are sealed properly.
- Notify Rick Heckus of any outstanding packages to be delivered, especially biological samples that are temperature sensitive.
- Confirm that all equipment is unplugged. Check that all network computers are attached to surge protection and left on for updates.
- Check that no materials/equipment are left stored on the floor where they could be damaged by flooding.
- Ensure that hazardous materials and glassware are off benches and stored properly.
- Confirm that lab space is secured.
ACKNOWLEDGEMENTS

Employee and student acknowledgements

By printing and signing my name in the table below, I acknowledge that I have been trained on the procedures outlined in this document, that I have been consulted and have no reservations with the safety precautions and processes that will be in place to conduct research described in the request to be in on campus.

<table>
<thead>
<tr>
<th>Worker Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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Principal Investigator Acknowledgement:
I acknowledge that I am responsible for the implementation of all procedures outlined in this document to reduce infection risk of COVID-19. Those found not following these directives may be subject to corrective action up to and including disciplinary measures.

Principal Investigator Name:  Mingqian (John) Zhang

Principal Investigator Signature: ___________________ Date: August 18, 2020