

COVID-19 Workspace Safety Plan

This plan requires the review of the operational activities in your workspace to ensure effective controls are in place to prevent the transmission of COVID-19. Management and supervisory staff are responsible for developing and updating this document to meet current government mandated requirements.

<https://covid19.ubc.ca/>

Department / Faculty	<u>Microbiology and Immunology / Science</u>
Facility Location	<u>Biosciences</u>
Proposed Re-opening Date	<u>August 15, 2020</u>
Workspace Location	<u>Department space</u>

Introduction to Your Operation

1. Scope and Rationale for Opening

The Department of Microbiology and Immunology offers BSc majors and honours programs in Microbiology and Immunology, Biotechnology, and related combined programs. Core to these programs is the development of laboratory skills. These skills are required for students to fully participate in the co-op program and continue on to graduate programs. We have analysed our laboratory course offerings to determine which learning objectives could be delivered online, deferred, or delivered in-person in an on-campus laboratory setting. We will be opening undergraduate teaching labs to serve students as required to achieve learning objectives without delaying graduation. We propose to keep open teaching labs for term 2 of the 2020/2021 academic year. For term 2, the plan is to hold part of MICB 323 (maximum of 8 weeks) in-person and MICB 401 for a maximum of 12 weeks.

The plan was developed by lab course instructors and the department facility manager. The plan is approved by the Department Head, Michael Murphy.

Undergraduate lab courses will operate at 1/3 normal occupancy to meet physical distancing measures. The lab will have additional cleaning measures, and the flow of students through the lab will be regulated to minimize contact. Students will be in the same lab cohort throughout the course. The number of sections supervised by an instructor and TA will be limited to reduce contacts. The undergraduate student support prep spaces are sufficiently spacious to accommodate technical support staff while maintaining physical distancing.

Section #1 – Regulatory Context

2. Federal Guidance

- [Government of Canada: “Hard-surface disinfectants and hand sanitizers \(COVID-19\): List of disinfectants with evidence for use against COVID-19”](#)

3. Provincial and Sector-Specific Guidance

- [BC’s Restart Plan: “Next Steps to move BC through the pandemic”](#)

4. Worksafe BC Guidance

- [COVID-19 and returning to safe operation – Phase 2](#)

<ul style="list-style-type: none"> • Worksafe COVID-19 Safety Plan • Worksafe: Designing Effective Barriers • Worksafe: Entry Check for Workers • Worksafe: Entry Check for Visitors • Worksafe: Education (Post-secondary)
5. UBC Guidance
<ul style="list-style-type: none"> • UBC Employee COVID-19 PPE Guidance • Ordering Critical Personal Protective Equipment • Building Operations COVID-19 website - Service Level Information
6. Professional/Industry Associations
Not applicable.

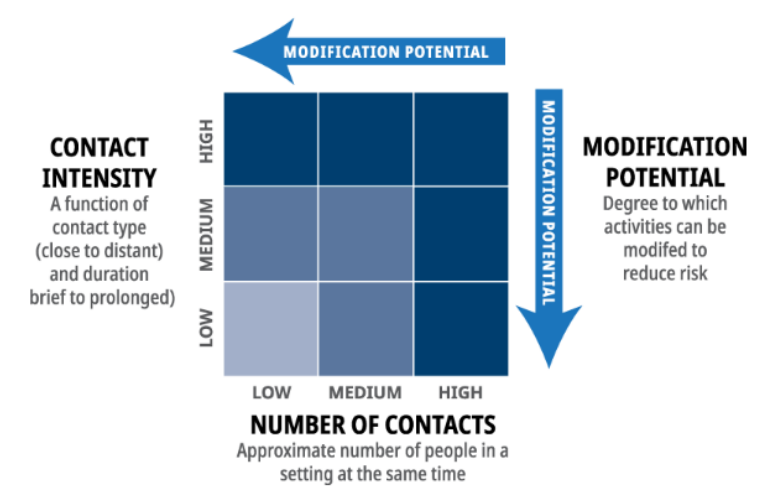
Section #2 - Risk Assessment

As an employer, UBC has been working diligently to follow the guidance of federal and provincial authorities in implementing risk mitigation measures to keep the risk of exposure as low as reasonably achievable. This is most evident in the essential service areas that have remained open on campus to support the institution through these unprecedented times. These areas have been very active with respect to identifying and mitigating risks, and further re-evaluating the controls in place using the following risk assessment process.

Prior to opening or increasing staff levels:

Where your organization belongs to a sector that is permitted to open, but specific guidance as to activities under that sector are lacking, you can use the following risk assessment approach to determine activity level risk by identifying both your organization's or activity's contact intensity and contact number, as defined below:

1. What is the contact intensity in your setting pre-mitigation – the type of contact (close/distant) and duration of contact (brief/prolonged)?
2. What is the number of contacts in your setting – the number of people present in the setting at the same time? As a result of the mass gatherings order, over 50 will fall into the high risk.



One or more steps under the following controls can be taken to further reduce the risk, including:

- Physical distancing measures – measures to reduce the density of people
- Engineering controls – physical barriers (like Plexiglas or stanchions to delineate space) or increased ventilation
- Administrative controls – clear rules and guidelines
- Personal protective equipment – like the use of respiratory protection

7. Contact Density (proposed COVID-19 Operations)

Describe the type of contact (close/distant) and duration of the contact (brief/prolonged) under COVID operations - where do people congregate; what job tasks require close proximity; what surfaces are touched often; what tools, machinery, and equipment do people come into contact with during work

Student laboratory courses:

Each student is assigned a work space, physically distanced (2 m) from all other students. Students will receive feedback on their lab technique from physically distanced instructors. Flow of students through the lab will be limited to their immediate bench area and transient movement will be regulated by request by the teaching assistant and instructor. An example is to use shared equipment or for a washroom break. Example movement flow through a student lab is in attached key plans.

Technical support staff:

Technical teaching support staff prepare materials and clean up after lab sessions. A maximum of five support staff will work per day. Student laboratory preparation and cleanup will be performed before and after student lab sessions. The staff will not be in direct contact with students. A sign at the entrance of each preparation laboratory space will be indicate the maximum occupancy (1 to 3 people) to maintain physical distancing. The staff will be distributed throughout these spaces to maintain physical distancing.

8. Contact Number (proposed COVID-19 Operations)

Describe the number of contacts in your proposed COVID-19 operational setting (# of people present in setting at same time)

Student laboratory courses:

MICB 323 includes a once a week 4 hour lab over a maximum of 8 weeks held in 2 adjoining lab rooms (BioScience rooms 3145 and 3133), each with a cohort of 8 students, a teaching assistant and a shared instructor (10 people total). The students will also use an adjacent tissue culture room 3137A (max occupancy of 4). Each instructor will supervise one or two days a week, up to 4 sections (32 students and 4 teaching assistants).

MICB 401 includes a 2.5 hour lab each week for up to 12 weeks. Each lab section has 6 students, a teaching assistant and an instructor (8 people total in BioScience 3125). MICB 401 will offer 6 sections per week for a total of 36 students, one instructor and 2 teaching assistants.

Technical support staff:

A total of 5 teaching support staff will service the lab spaces outside scheduled lab course time. Three support staff will be scheduled per day to clean and service student labs to minimize contacts.

9. Employee Input/Involvement

Detail how you have met the MANDATORY requirement to involve frontline workers, Joint Occupational Health and Safety Committees, and Supervisors in identifying risks and protocols as part of this plan

The plan was developed by Department of Microbiology and Immunology lab course instructors and the department facility manager. Feedback was sought by email from the teaching support staff and the Heads of the four other Departments occupying the building. Teaching assistants will be provided with the plan along with the job description before being appointed. When possible faculty and staff can choose alternative remote work assignments for the fall term. The plan will be sent to the Faculty of Science JOHSC for review within 30 days of submission.

10. Worker Health

Detail how all Supervisors have been notified on appropriate Workplace Health measures and support available and how they will communicate these to employees

Instructors and staff receive email invitations to well-being sessions organized by the department. Weekly course coordination meetings will be held to check in with the full instructional team. Teaching assistants are supported by the Graduate Coordinator. Support staff will meet weekly with the department facility manager to discuss safety concerns.

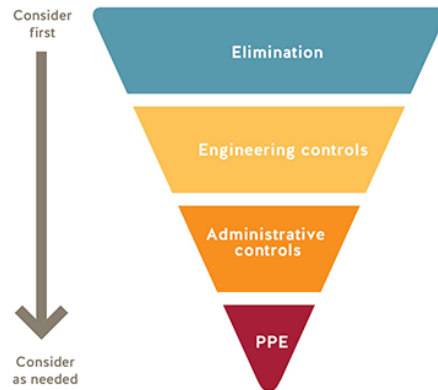
11. Plan Publication

Describe how you will publish your plan ONLINE and post in HARD COPY at your workplace for employees and for others that may need to attend site

A hard copy of the laboratory course safety plan will be posted in the lab and emailed to all instructors and teaching assistants. It will be available to students through course Canvas sites and reviewed with the students prior to as well as during the first lab session. A copy will be available on the department website.

Section #3 – Hazard Elimination or Physical Distancing

Coronavirus is transmitted through contaminated droplets that are spread by coughing or sneezing, or by contact with contaminated hands, surfaces or objects. UBC's goal is to minimize COVID-19 transmission by following the safety hierarchy of controls in eliminating this risk, as below.



The following general practices shall be applied for all UBC buildings and workspaces:

- Where possible, workers are instructed to work from home.
- Anybody who has travelled internationally, been in contact with a clinically confirmed case of COVID-19 or is experiencing “flu like” symptoms must stay at home.
- All staff are aware that they must maintain a physical distance of at least 2 meters from each other at all times
- Do not touch your eyes/nose/mouth with unwashed hands
- When you sneeze or cough, cover your mouth and nose with a disposable tissue or the crease of your elbow, and then wash your hands
- All staff are aware of proper handwashing and sanitizing procedures for their workspace
- Supervisors and managers must ensure large events/gatherings (> 50 people in a single space) are avoided
- Management must ensure that all workers have access to dedicated onsite supervision at all times.
- All staff wearing non-medical masks are aware of the risks and limitations of the face covering they have chosen to wear or have been provided to protect against the transmission of COVID-19. See [SRS](#) website for further information.

12. Work from Home/Remote Work

Detail how/which workers can/will continue to work from home (WFH); this is required where it is feasible

On a given day **only 2 instructors and 3 teaching assistants** will be required to be on-campus to teach. At most three out of five technical support staff will be on campus to support in-person lab courses on a given day.

13. Work Schedule Changes/Creation of Work Pods or Crews or Cohorts

For those required/wanting to resume work at UBC, detail how you are able to rescheduling of workers (e.g. shifted start/end times) in order to limit contact intensity; describe how you may group employees semi-permanently to limit exposure, where necessary

For MICB 323 each instructor will be scheduled at most 2 days a week. For this laboratory course, 3 instructors will cover the 5 days in each week. Each instructor will be scheduled for the same days each week and have contact with the same group of students through the term. The lower enrolment for MICB 401 (36 students) allows for one instructor. For both courses, each teaching assistant is assigned to assist with in-person labs a maximum of two days per week.

The daily entrance and exit of each group of (6-8) students will be staggered by at least 30 minutes by lab section to limit contact and congestion in hallways, elevators and stairwells. Student entry into the building will be regulated at one entrance to the building. The support staff will deep clean the lab between sections. If another department proposes to hold a course, we will coordinate to minimize interaction between the students in each course.

14. Spatial Analysis: Occupancy limits, floor space, and traffic flows

Describe or use UBC building key plans (or do both, where appropriate) to identify and list the rooms and maximum occupancy for each workspace/area, explaining your methodology for determining occupancy

Students will use designated door and stairway to enter the building and reach the third floor (see attached key plans). An elevator is available for students unable to use stairs. To maintain physical distancing, student entrance will be metered at the building entrance and they will travel directly to their assigned workspace in the lab. Students will have access to washrooms. No other space in the building will be made available. Students will be able to use UBC centrally-allocated study space to access online courses scheduled immediately before or after a lab session.

Stairways and hallways will have signs indicating directional flow If designated. Elevators and washrooms will have signage indicating maximum occupancy. The lab doors will be marked with entrance and exit signage.

Lab and preparatory room occupancies are based on 1/3 normal occupancy and a criteria of student workstations 2 m from each other. Key plans are attached showing the location of work stations, flow through the lab, and flow through the building wing including unidirectional stairways.

15. Accommodations to maintain 2 metre distance

Please detail what accommodations/changes you have made to ensure employees can successfully follow the rule of distancing at least 2 metres from another employee while working

The lab courses are redesigned to focus on essential skills and limit the need for movement within the lab. Where possible instructional videos will be made available to students beforehand. Washrooms have signage indicating capacity. Entry into the lab is scheduled and occupancy is controlled at all times.

16. Transportation

Detail how you are able to (or not) apply UBC's COVID-19 vehicle usage guidelines to the proposed operational model - if you cannot apply these guidelines, please describe alternative control measures

Not applicable.

17. Worker Screening

Describe how you will screen workers: 1) exhibiting symptoms of the common cold, influenza or gastrointestinal; 2) to ensure self-isolation if returning to Canada from international travel; and 3) to ensure self-isolation if clinical or confirmed COVID-19 case in household or as medically advised

Students are asked to report that they have completed the required self-health check using a Canvas quiz. Students that fail to complete the online quiz are questioned as they enter the lab.

Signage will be posted detailing the required self-health check. Students will be given the opportunity to make up for missed lab attendance to remove undo pressure to be present. Students will be monitored for symptoms during the lab. Backup instructors and teaching assistants will be available should anyone on the instructional team feel ill or is required to self-isolate. Students will be able to take the in-person modules of the lab course at a later date if they are required to self-isolate.

18. Prohibited Worker Tracking

Describe how you will track and communicate with workers who meet categories above for worker screenings

The department Head will be notified of instructors, teaching assistants, or students that are required to self-isolate. Students that require self-isolation will be reported to the Faculty of Science advising office.

Section #4 – Engineering Controls

19. Cleaning and Hygiene

Detail your cleaning and hygiene plan, including identification for hand-washing stations and the cleaning regimen required to be completed by your departmental staff (i.e. non-Building Operations) for common areas/surfaces

Student laboratory courses:

Students will use hand sanitizer upon entering the building and lab room. At the completion of a lab session, each student will use either a 70% ethanol / SDS solution or a bleach-based solution to wipe down their bench area and equipment. The appropriate cleaning protocol will be demonstrated and monitored by the instructors. Lab coats will remain in the lab. Personal eye protection will be kept in the lab coat pocket. Lab coats will be professionally laundered and returned to the students' mid-term and the end of term.

Technical support staff:

Technical support staff will use hand sanitizer or wash hands when entering and exiting the building. High touch areas (sinks, faucets, door knobs and bench surfaces) and shared equipment will be wiped down with either a 70% ethanol / SDS solution or a bleach-based solution each day by teaching support staff. Staff will receive training on cleaning procedures and cleaning will be logged daily. Lab coats,

face shields, disposable face masks and gloves will be used during cleaning procedures. Cleaning materials, face masks and gloves will be disposed. Face shields will be disinfected using either a 70% ethanol / SDS solution or a bleach-based solution. If face shields are purchased that do not meet CSA standards for PPE, they will be marked as COVID-only.

20. Equipment Removal/Sanitation

Detail your appropriate removal of unnecessary tools/equipment/access to areas and/or adequate sanitation for items that must be shared that may elevate risk of transmission, such as coffee makers, kettles, shared dishes and utensils

Equipment not required during COVID-19 teaching lab operations will be removed from student access to increase the space available for social distancing. As much as possible the flow of students will be limited to their immediate bench area. Microbiology labs are regularly sanitized as standard operating procedure. These procedures will be enhanced to occur more often and to include shared equipment and high touch surfaces as described in section 4 – 19 above.

21. Partitions or Plexiglass installation

Describe any inclusion of physical barriers to be used at public-facing or point-of-service areas

None of the work spaces are public facing.

Section #5 – Administrative Controls

22. Communication Strategy for Employees

Describe how you have or will communicate the risk of exposure to COVID-19 in the workplace to your employee, the conduct expectations for the employee's physical return to work around personal hygiene (including use of non-medical masks), the familiarization to contents of this plan, including how employees may raise concerns and how you will address these, and how you will document all of this information exchange

All instructors, teaching assistants, and staff are required to read and sign-off on the safety plan. Online theory and training will be provided to students prior to the first lab session. Students will be required to pass an online exam before being granted access to work in the lab. The online exam will cover traditional lab safety, the details of the safety plan, COVID-19 symptoms and self assessment, proper hand washing procedures, physical distancing procedures, and the use and limitations of personal protective equipment. A review of the safety plan and physical demonstration of above procedures will occur during the first lab session.

Throughout the term, Instructors and teaching assistants will observe student behaviour in the laboratory (e.g. proper handwashing, physical distancing, lab bench organization) and provide immediate feedback to ensure compliance with the standards set for safe and effective lab work.

Teaching assistants will be encouraged to raise concerns with the lab coordinator. Instructors can raise safety concerns at instructional team meetings. Technical support staff can raise their concerns with the facility manager. The facility manager and instructors can report concerns to the Department Head.

23. Training Strategy for Employees

Detail how you will mandate, track and confirm that all employees successfully complete the [Preventing COVID-19 Infection in the Workplace](#) online training; further detail how you will confirm employee orientation to your specific safety plan

All employees will be required to complete UBC's 'Preventing COVID-19 Infection in the Workplace' online training module. Supervisors will be responsible for tracking staff completion as well as site-specific training. Students will be required to complete a student-specific COVID-19 prevention course. Students will be required to complete additional training on lab specific COVID-19 mitigation procedures as described in section 5 – 22 above.

24. Signage

Detail the type of signage you will utilize and how it will be placed (e.g. floor decals denoting one-way walkways and doors)

Signage on the floor for use of stairways, elevator, and washrooms will be consistent with existing signage on research floors. The entrance to the lab will have signage indicating maximum occupancy, and COVID-19 mitigation requirements (health self-check, physical distancing, hand washing). The lab will have floor signs indicating work stations and traffic flow. The lab doors will be marked with entrance and exit signs.

25. Emergency Procedures

Recognizing limitations on staffing that may affect execution of emergency procedures, detail your strategy to amend your emergency response plan procedures during COVID-19. Also describe your approach to handling potential COVID-19 incidents

The BERP has been updated as per recommendations by SRS.

26. Monitoring/Updating COVID-19 Safety Plan

Describe how monitor your workplace and update your plans as needed; detail how employees can raise safety concerns (e.g. via the JOHSC or Supervisor) - plan must remain valid and updated for next 12-18 months

The instructional team, facility manager, and student support staff will meet biweekly to discuss lab operations including safety. All department instructors, staff, and students can bring concerns to the department safety committee. The facility manager and department safety committee co-chairs will make recommendations to update this plan to the Department Head and Operations Manager.

27. Addressing Risks from Previous Closure

Describe how you will address the following since the closure: staff changes/turnover; worker roles change; any new necessary training (e.g. new protocols); and training on new equipment

All instructors and staff are trained microbiologists. Three instructors are assigned to each course to allow for coverage in case of illness. Sufficient teaching assistants are available to cover for illness.

The facility manager in consultation with the instructors will develop written procedures for additional lab cleaning. The teaching support staff will be responsible for additional cleaning which will be documented daily. Technical staff can be reassigned from non-essential activities to cover for illness.

Section #6 – Personal Protective Equipment (PPE)

28. Personal Protective Equipment

Describe what appropriate PPE you will utilize and how you will/continue to procure the PPE

In addition to standard lab PPE (lab coat, safety glasses), students will be provided gloves and disposable face masks. Instruction on the safe and effective use of masks and gloves in the laboratory will be delivered.

In addition to standard PPE, gloves and disposable face masks, instructors, teaching assistants and staff will have access to face shields for cleaning and emergency procedures which would temporarily limit social distancing. We anticipate having sufficient PPE supplies in stock before the start of a course. PPE supplies will be ordered through University Procurement (critical.supply@ubc.ca).

Section #7 - Acknowledgement

29. Acknowledgement

Plan must demonstrate approval by Administrative Head of Unit, confirming: 1) the Safety Plan will be shared with staff and how; 2) staff will acknowledged receipt and will comply with the Safety Plan.

I acknowledge that this Safety Plan has been shared with staff both through email and will be made available as a shared document. Staff can either provide a signature or email confirmation that they have received, read and understood the contents of the plan.

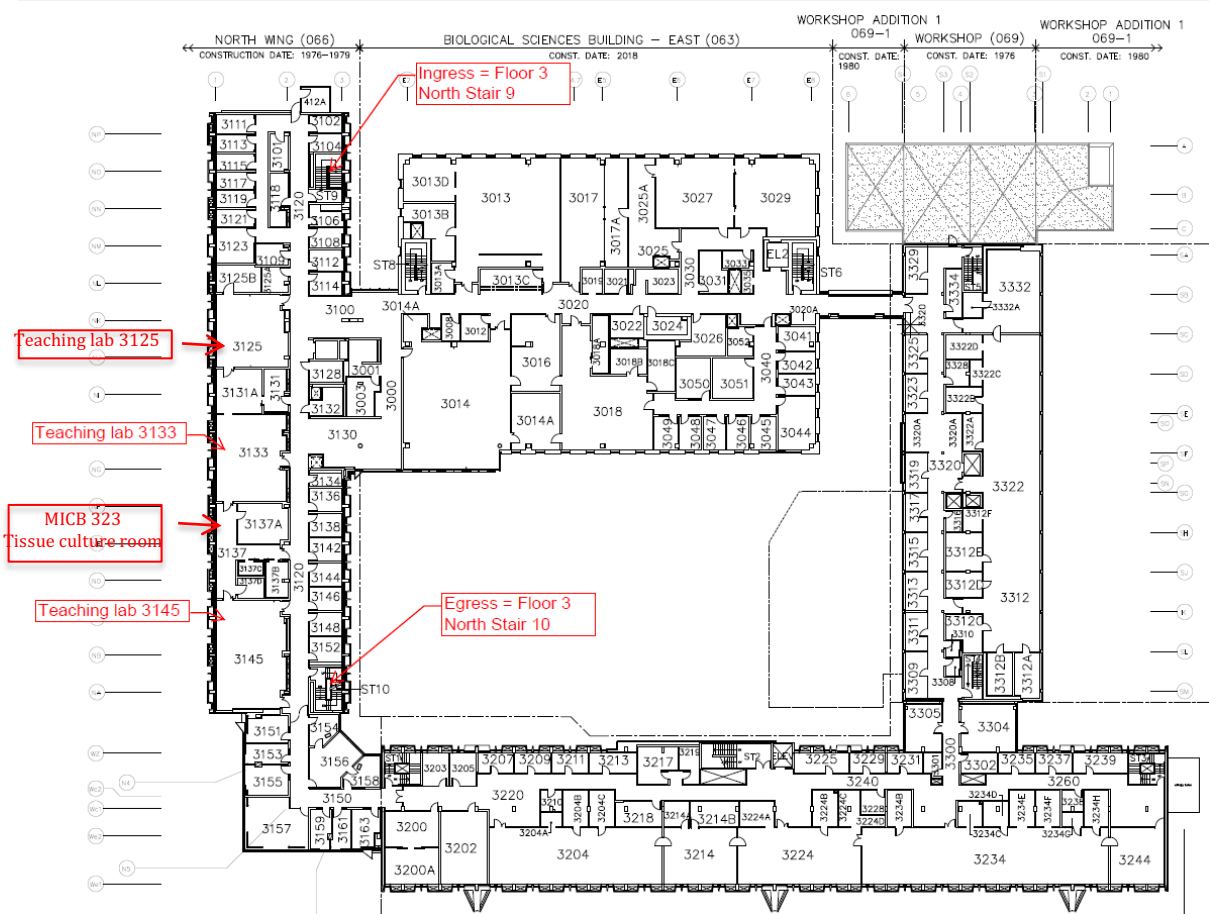
Date November 12, 2020

Name (Manager or Supervisor) Michael Murphy

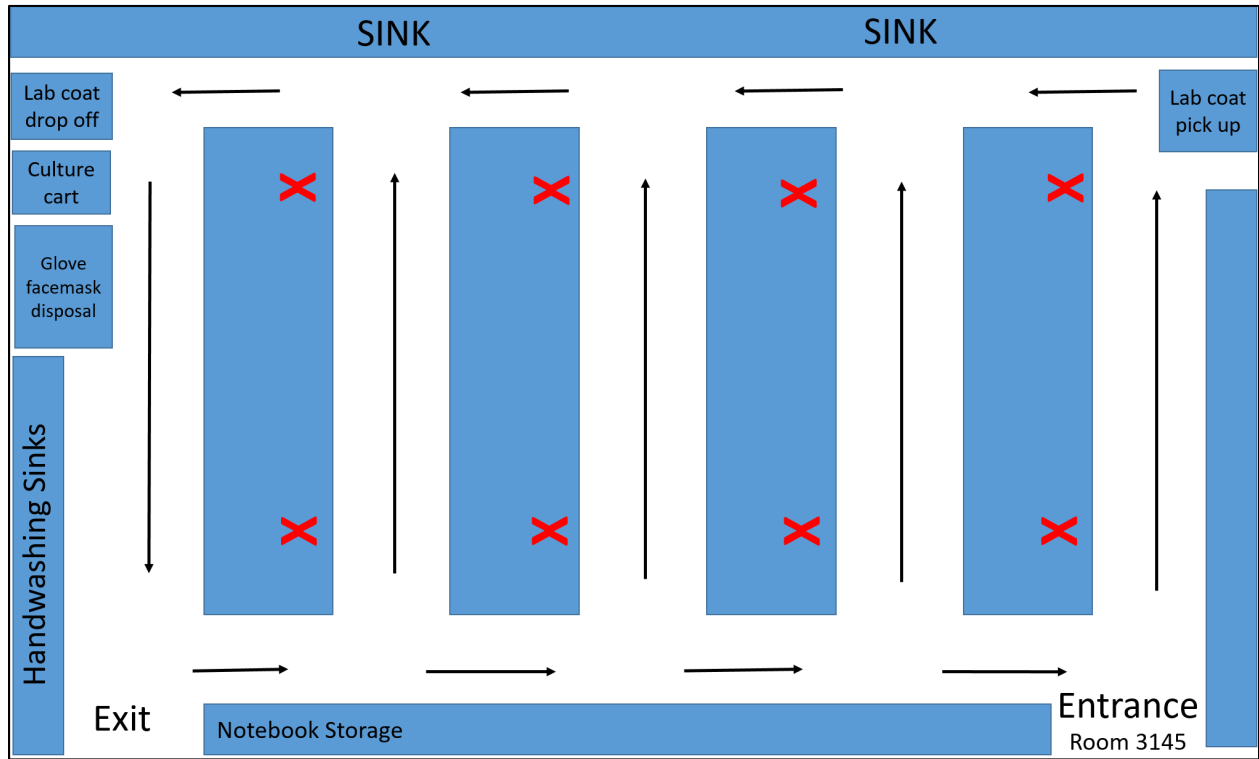
Title Head, Department of Microbiology and Immunology

Appendix

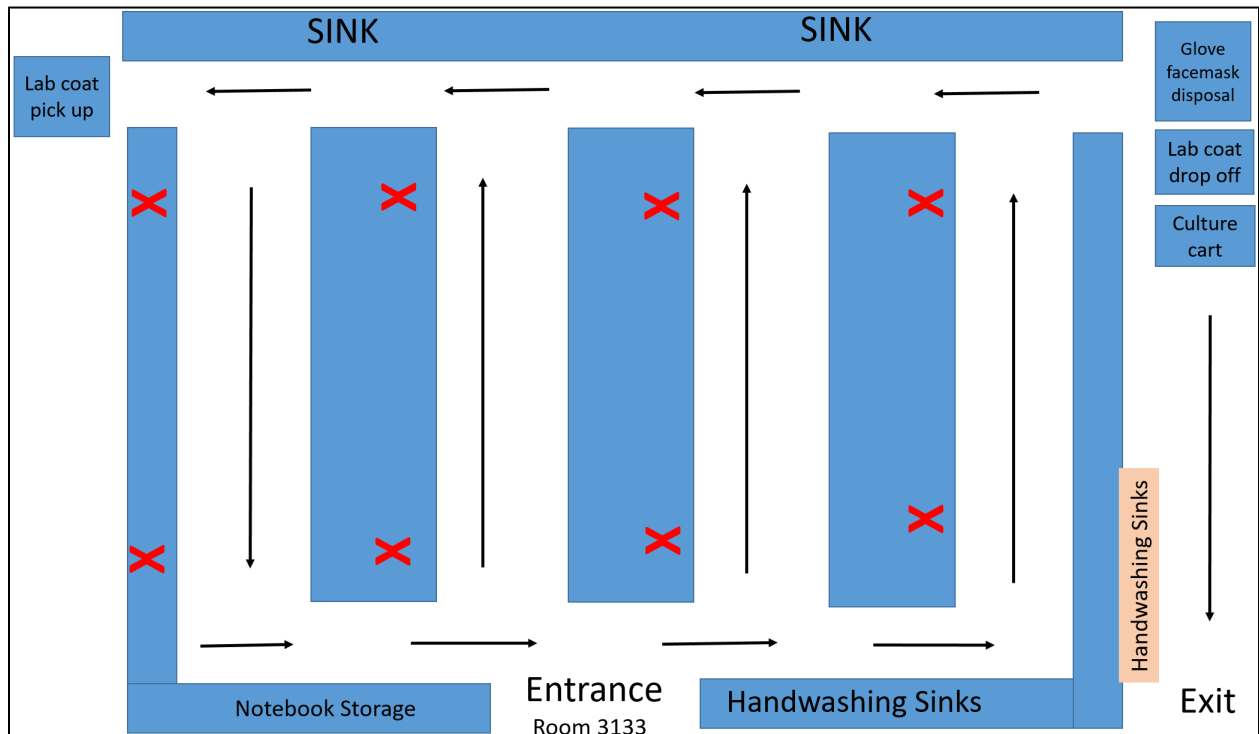
Biological Sciences Building Ingress and Egress.

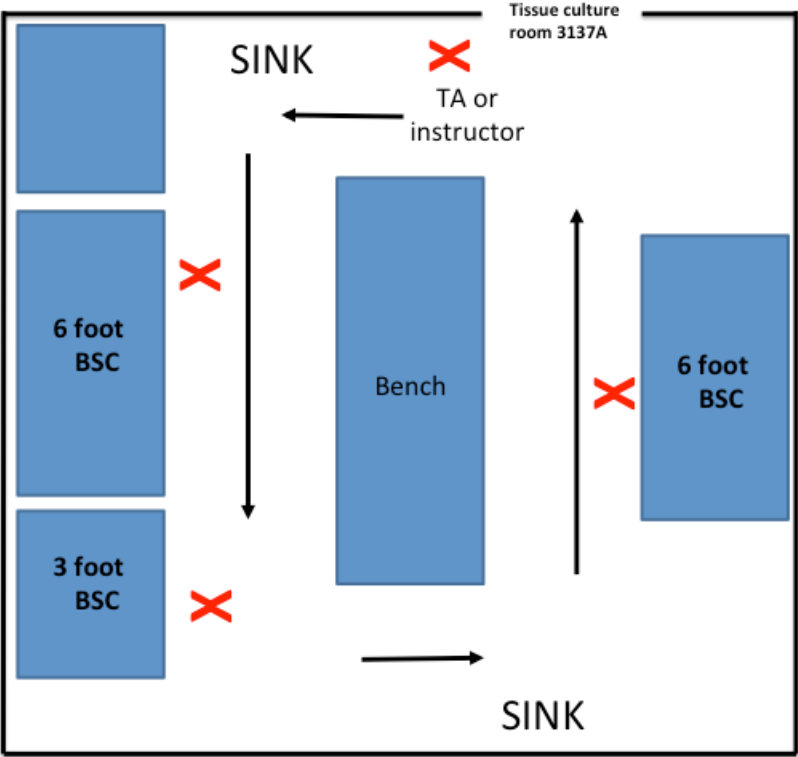


Microbiology and Immunology Teaching Lab Flow. Teaching lab room 3145 (MICB 323).



Microbiology and Immunology Teaching Lab Flow. Teaching lab room 3133 (MICB 323)..





Lab 3125 for MICB 401

