

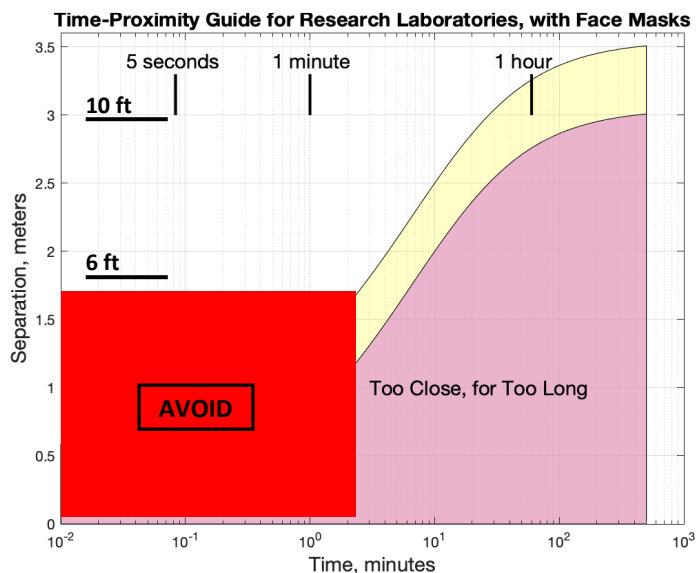
## Overview

To limit the exposure and spread of SARS-CoV-2 (COVID-19) virus, it is extremely important to practice physical distancing.

### Physical Distancing Recommendations

- Minimize the number of individuals on campus. Those who can work at home, should do so.
- Postpone non-essential laboratory activities.
- Maintain a minimum of 6 feet (2 meters) distance between individuals. If possible, additional separation can further help to prevent exposure, if there is prolonged co-occupancy in a lab or office space. See Figure 1.
- Determine the maximum occupancy allowed at each time for satellite/core/common rooms/facilities.

PIs are encouraged to clarify the new norms and behavioral expectations following these guidelines. Educate all lab members so they understand that it is completely acceptable to ask/tell other people politely to step back a few steps if the required physical distance is not maintained. Remember to wear face coverings at all times while on campus.



**Figure 1** – Illustrated is the relationship of time and distance on potential exposure and approximate time-separation guidelines for individuals working with cloth face coverings or surgical masks. Minimize integrated “exposure” which depends on both separation and duration. PIs are advised to arrange lab workflow to avoid interactions that fall in the red shaded region. (Adapted from CDC recommendations, April 2020.)



## Lab Space, Including Work Areas and Work Flow

It is recommended that PIs use their building floor plans to help design work areas and plan for safe work flow. Shown below are examples:

1. Continue to hold meetings remotely.
2. Resume work slowly with limited staff.
3. Review the layout of benches, workstations, and devices within the lab.
4. Consider changing work processes, e.g. assign specific tasks to the same person to restrict the movement across laboratories such as confocal microscopy, cell culture, etc.
5. Designate foot-traffic lanes, including the lab entrance region, access to the sink, etc. Use one-way traffic patterns between benches wherever possible.
6. Designate specific workstations on lab benches, with maximum physical separation, at least 6 feet apart; researchers should not be facing each other on work benches. Ideally, every researcher has their own, separate bench or create staggered workspace in a zigzag pattern.
7. If a physical separation of work benches is not possible, consider contacting Physical Plant Department (PPD) via a Famis Service Request to have them install a physical barrier, such as an acrylic wall or “cubicle” around work areas.
8. Remove or label chairs to provide separation between researchers where they stand or sit at the workbench.
9. Designate 6 feet regions on lab benches using gaffer’s tape on counter or floor. Using tape on the floor, mark out 6 feet regions on lab benches. *Examples are shown in Figure 2.*
10. Designate no-occupancy or limited-occupancy areas. Post signage indicating the occupancy levels in appropriate locations.
11. Post signs in the lab reminding researchers to maintain a safe distance and regularly wash their hands.



12. Place gaffer’s tape or markers on the floor to identify 6-foot separations for shared equipment, chemical fume hoods, storage cabinets, sinks, etc. Examples are shown in Figure 2.



Figure 2 – Examples of marking out work areas and work flow. (Adapted from Harvard Return Plan.)

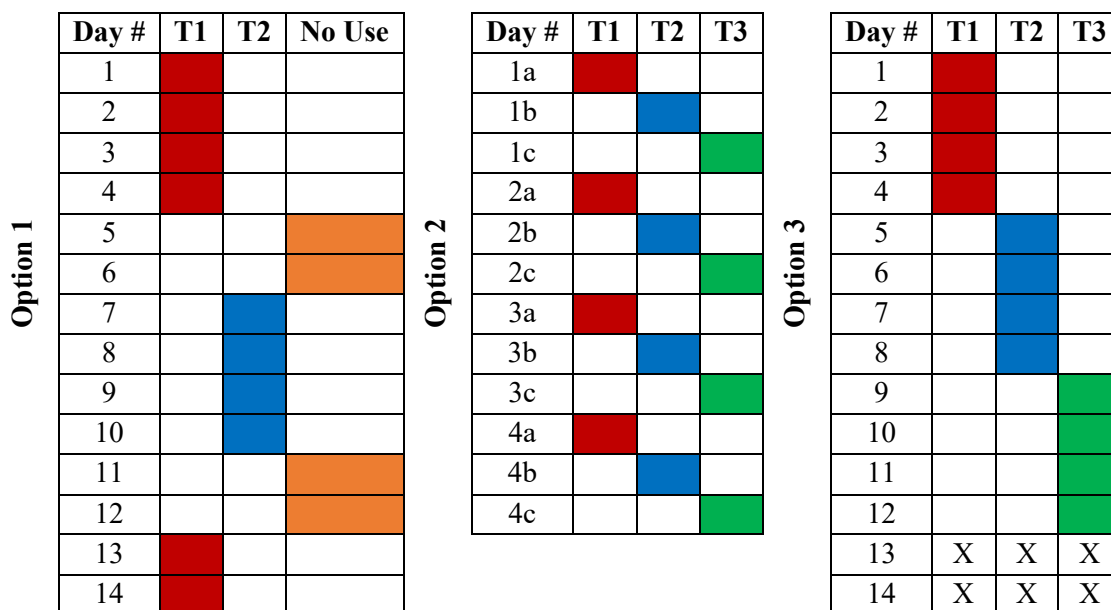
13. Schedule staggered access to shared instruments, microscopes, etc. to reduce overlaps (more information about this above in Figure 2).

14. Work in Shifts. Consider having the same two people work together to make tracking easier should one of them become COVID-19 positive.

15. Restrict visitors to only essential visitors, such as contractors and vendors.

## Organizing Lab Occupation and Use

Communication tool for distance communication with all group members. This will be important to determine and notify everyone of general lab space usage as well as shared equipment. Options include an online calendar, google doc with fillable table, Microsoft Teams, etc. In the online communication, specify shift schedules for individual researchers, so that a maximum level of physical distancing can be maintained and overlap/waiting is minimized (Figure 3).



**Figure 3** – T1 = Team 1; T2 = Team 2; T3 = Team 3

Example work schedules for lab groups with two or three teams of researchers.

In Option 1, each team works 4 days on and 8 days off with 2 days between groups of the lab being empty.

In Option 2, each team works a portion of every day in the lab, e.g. 4-hour shifts.

In Option 3, each team works in 4-day increments, with the following 10 days off. The lab will be empty days 13 and 14 of any cycle.

These options are only suggestions. Every PI needs to determine the best schedule for their lab and researchers.

When designing a work plan, keep in mind the following: If an individual tests positive for COVID-19 virus, every person who has shared the same space at the same time will be required to report this to UVM and quarantine for up to 14 days. A possible solution could be to form two (2) more distinct “teams” which would work on alternate days or alternate shifts with no temporal overlap. Using this strategy, a whole lab might not necessarily have to go out of commission all at once (details would need to be discussed and determined with health and safety specialists).