

KAUST Core Labs User Guidelines during CoVID-19 Crisis

The following guidelines cover the new procedures and measures put in place in all Core Labs following the general guidelines provided by KAUST HSE Department but adapted to the special circumstances of shared research facilities on campus.

These guidelines are divided into 7 sections to help guide our users through the new procedures in place to protect their health and safety as well as that of our Core Labs staff. These sections are:

1. General Guidelines
2. Social Distancing and Occupancy
3. Cleaning and Disinfection
4. Access Scheduling and Remote Support
5. PPEs
6. RFS and other Operational Considerations
7. LEM Operational Requirements

We have consulted extensively with the HSE Department as well as many other references from institutions around the world to formulate these guidelines. All references can be found at the end of this document.

1. GENERAL GUIDELINES

- Following HSE recommendations and in order to build resilience in terms of available personnel and services, Core Labs will limit physical presence of staff in the labs to 50%.
- Each Core Lab will establish staggered shift work according to their particular operations. 50% of the staff will be present in the lab while 50% will work remotely performing other tasks and services.
- Core Labs will continue to offer RFS up to the capacity that 50% staffing allows.
- Core Labs will continue to offer training remotely via online methods.
- In-person trainings will not be provided until such time that conditions for close interaction are deemed safe for users and our staff.
- Core Labs will request all PIs to provide a list of designated fully independent users from their group for each particular technique and/or equipment. PIs are responsible for ensuring these users are capable of performing experiments and operate the required equipment with no support or supervision from Core Labs staff. Core Labs can provide training and usage records to the PIs, if they request them, in order to help build the list of designated users.
- During PHASE 2 (see below), Core Labs reserve the right to decline a scheduled booking by any user not in the designated list by their PI.

- Core Labs staff present in the lab will be there to ensure overall lab safety and equipment availability status.
- We encourage all designated fully independent users to request lab bookings through Badger (or any other lab-specific booking method) only when strictly necessary. If tasks can be performed remotely, users are encouraged to do so without coming to the laboratory.
- Note that users with existing bookings might not be able to access instruments due to maximum occupancy limits in certain Core Labs spaces. Core Labs staff will endeavor to review bookings in the system and alert affected users of potential occupancy conflicts so they can reschedule. We expect these situations to be uncommon but we will work to minimize the inconvenience they might cause.
- Core Labs will open in three distinct phases:
 - **PHASE 1: Core Lab's staff-only access**
During this phase, which is expected to last up to 2 weeks, our teams will prepare the labs for users, ensure equipment is ready for operation, ensure cleaning and disinfection is done, prepare all areas for occupancy and new signage. Systems for remote access will also be tested. PIs will be contacted to provide their list of designated fully independent users.
 - **PHASE 2: Designated fully independent user access**
In this phase we will begin accepting RFS requests and we will restart remote training where possible. Designated fully independent users will be able to book instrument time and access laboratories. Having limited numbers of users in the labs will allow us to test and modify cleaning and distancing protocols to be in place during later phases.
 - **PHASE 3: Less restricted operations**
Core Labs will only move to this phase if conditions are deemed safe for all users and staff working with increased occupancy limits and in close proximity. In this phase, all users are permitted in the Core Labs, strictly following all new guidelines and protocols established including strict booking arrangements for spaces and equipment. Core Labs teams will work with HSE Department to try and minimize the amount of individual close distance training and maximize support that can be done safely, but we cannot guarantee that advanced support or training will be available until we can ensure the health and safety of users and staff during those procedures.
- We would like to remind all PIs, researchers, staff and students that during the initial stages of lab ramp up, and for a period of time after Core Labs are open, they should expect longer than usual response times for services and remote support requests. We expect service delays will be further affected if staggered shift schedules are implemented to maximize social distancing. We would like to ask for patience and understanding during these difficult times, as it will take time to adjust to new routines and protocols that will become the norm in the future.
- All users must follow these guidelines when using Core Labs, in addition to any other HSE Department and KAUST guidelines.

2. SOCIAL DISTANCING AND OCCUPANCY GUIDELINES

- Each room and/or area within Core Labs will be marked with a Maximum Occupancy number. Users must strictly follow the posted information and not access any area where occupancy is at the limit. Since only users with an existing booking will come into the laboratories, we expect occupancy limits will be observed via bookings. It is the users' responsibility to observe the occupancy limits of each area and follow the guidelines.
- Many Core Lab areas will have floor markings to delimit spaces that should be occupied by a maximum of one person. Users must follow these floor markings and ensure proper distancing from staff and users.
- A minimum of 2m distance must be maintained between work spaces of lab staff or users unless overridden by more recent guidance by HSE.
- Core Labs office areas near the labs will be off-limits for non-Core Labs staff. Use existing remote collaboration tools or phone calls to contact Core Labs staff.
- There will be no in-person meetings. All meetings with Core Labs staff will be conducted remotely.
- Elevators, break rooms, lounge areas, and tea rooms will have limited occupancy and no meetings will be allowed in those areas.
- We ask users to observe social distancing in all corridors and access areas. Avoid stopping in those areas to ensure others can also transit through them.

3. CLEANING AND DISINFECTION GUIDELINES

- Users are required to wipe work areas before and after use with the cleaning supplies available in each area. Given the sensitivity and fragile nature of some equipment, Core Labs staff will take care of the cleaning in some instruments. This will potentially lead to some block time slots during work hours for disinfection procedures.
- Users **MUST NOT EMPLOY THEIR OWN CLEANING AGENTS** on lab equipment without prior consultation of lab staff. Many disinfectant solvents may cause severe contamination or **IRREVERSIBLE DAMAGE** to sensitive lab equipment, computer monitors, plastic housing etc.
- Some Core Labs or areas where continuous thorough cleaning is not feasible, users will be instructed to wear appropriate PPE including disposable gloves, lab coats and safety glasses (see Section 4. PPE)
- Core Labs staff will ensure sufficient cleaning wipes and/or disinfectant solution is available in all areas where users can access.
- Doors that can be safely propped open will be, to avoid the use of door handles.
- Users should ensure they discard cleaning wipes and other materials in the proper waste receptacles placed near each user area.
- It is mandatory for all users to wash/sanitize their hands thoroughly in the restrooms or at the various hand sanitizer stations in the Core Labs before coming in to any Core Labs spaces during their scheduled slot.

4. ACCESS SCHEDULING AND REMOTE SUPPORT

- Users must continue to use the Badger system or any other lab-specific booking system to ensure timely access to their requested service or equipment.
- In coordination with the relevant User Committees, Core Labs might implement a short buffer time between bookings to minimize interactions between different users.
- Users without an existing service or equipment booking are not allowed to enter the Core Labs.
- Users accessing laboratories when no staff support is present must follow the Buddy System and continue to adhere to all guidelines in this document.
- Note that RFS system is available with limited capacity, given the 50% limit on Core Labs staff being physically present in the labs.
- User support and training will be done remotely as much as possible. Online resources will be available and introduced to users when they are ready.
- Wherever possible, users should use their own devices to enable/disable instruments on Badger.

5. Personal Protective Equipment (PPE)

- All users and staff must wear face masks and maintain social distancing while they are in Core Labs spaces.
- Core Labs will require that all users bring their own face masks, safety glasses, face shields, and/or lab coats when accessing the labs. Users are responsible for washing and sanitizing these PPEs appropriately, when feasible, before and after accessing the labs.
- In laboratories where masks could get contaminated with chemicals and/or biological materials, disposable surgical face masks must be used. No home-made masks are allowed in these labs. Lab signage will indicate this at the entrance of the designated areas.
- In several Core Labs, disposable gloves will be mandatory and available for working on shared areas/equipment when sanitizing is difficult.

6. RFS AND OTHER OPERATIONAL CONSIDERATIONS

- RFS will be available to solicit services from Core Labs. However, our resource capacity remains limited (50%) and users should expect slower responses if a significant increase in requests occurs from users unable to access labs directly.
- No walk-in RFS sample submissions will be accepted. All sample submissions for RFS will be required to book a sample drop-off appointment through the RFS system.
- All pipette calibration drop-off services will be suspended until further notice. The Artel pipette calibration system will be introduced for users to perform their own calibration.

- All consulting with Core Labs staff for support will be done remotely using online tools.
- Core Labs will endeavor to provide VNC, teamviewer, zoom, whatsapp, and/or phone options to facilitate support and help when users require it. Each lab will provide online and video-based training materials whenever possible.
- Each Core Lab area and/or instrument will have a dedicated contact point among Core Labs staff, posted at the particular location, for users to reach out for help when required.

7. LEM Operational Requirements

- When LEM staff are requested to access any campus laboratory, and to ensure the health and safety of our staff, the lab PI must ensure their areas are strictly following all HSE guidelines in terms of social distancing, occupancy, and cleanliness.
- LEM staff will bring their own PPE to access the labs.
- LEM will make appointments to visit any lab when their service is requested.
- PIs must ensure their labs are ready for the visit at the established time by:
 - Providing as many photos, videos, and information about the issue ahead of the visit, in order to minimize the amount of time LEM staff remains in the lab.
 - Ensuring the lab area is unoccupied or at least with minimal lab personnel while maintaining social distancing. If the LEM staff needs to remove their face mask and/or face shields and/or safety glasses to perform the required service, the lab must be evacuated.
 - Note that LEM staff might need to move around the labs to get solvents, glassware or tools. PIs must ensure those paths are free.
- Same as all other Core Labs, LEM offices are strictly off-limits to non-LEM staff.

REFERENCES:

- <https://research.yale.edu/phase-1-research-reactivation>
- <https://ehrs.upenn.edu/covid-19/research-resumption-checklist>
- <https://www.cushmanwakefield.com/en/insights/covid-19/recovery-readiness-a-how-to-guide-for-reopening-your-workplace>
- <https://www.medbox.org/document/covid-19-guidelines-on-disinfection-of-common-public-places-including-offices#GO>
- <https://www1.nyc.gov/assets/doh/downloads/pdf/imm/disinfection-guidance-for-businesses-covid19.pdf>
- <https://graphene.nus.edu.sg/practices-of-social-distancing-and-other-precautionary-measures-in-ca2dm-labs-cleanroom-and-office-area/>
- <https://hse.kaust.edu.sa/Services/Pages/covid-19.aspx>