Phase 2 Resumption of Chemistry Operations

In effect June 1st, 2020 and until further notice
Last updated: July 31, 2020

We thank everyone in UNC Chemistry for adhering to the stay-at-home orders. As we resume on-site operations, our policies are guided by two principles:

- A primary mission of the university is research, and a role of the department is to help facilitate the discovery and creation of new knowledge.
- The chemical research enterprise inherently involves mitigating risk associated with laboratory operations, and policies must support the mission while mitigating risk to the greatest degree possible, especially in the context of the COVID-19 pandemic.

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University-wide guidance

Before reading this document, please familiarize yourself with university protocol. The policies herein are in addition to the extant policies outlined by the Office of the Vice Chancellor for Research:

- https://research.unc.edu/covid-19/resuming/all/
- https://research.unc.edu/covid-19/resuming/lab/

List of relevant contact information and resources

- University Employee Occupational Health Clinic: 919-966-9119
- UNC Campus Health: 919-966-2281
- Ethic Point Hotline: 866-294-8688
- Guidance regarding masks and Phase 2 research operation training: https://ehs.unc.edu/infectious-diseases/coronavirus/
- Request a disabilities accommodation: eoc@unc.edu
- Campus Health: https://campushealth.unc.edu/
- UNC Coronavirus Updates: https://www.unc.edu/coronavirus/
- UNC Student Care Hub: https://keeplearning.unc.edu/
- Carolina Together, Roadmap for Fall 2020: https://carolinatogether.unc.edu/
- NC Department of Health and Human Services (NC DHHS): https://www.ncdhhs.gov/
- Centers for Disease Control COVID-19: https://www.cdc.gov/coronavirus/2019-nCoV/index.html
- SWELL feedback form

Policy at-a-glance

- Each group must create and submit a plan that details social distancing, shift work, and sanitization protocol.
- Do not come on campus if you can conduct your work remotely, are immunocompromised or at high risk.
- Check your symptoms before coming on campus at any time.
- Wear a University-approved mask while you are in public or common areas or in the presence of others, including lab.
- Maintain a minimum of 6 feet distance (200 sq ft/person) between yourself and other individuals.

- No more than half a group's personnel can report to work at any given time. If 50% capacity in your group exceeds 200 sq ft/person, reduce capacity till the social distancing guideline is met.
- Wash and/or sanitize your hands hourly, when entering and exiting a building, lab, office and/or hallway, and before/after handling your mask.
- Workspace surfaces, including instruments, should be sanitized using ≥70% EtOH or IPA solution at the beginning and end of each shift and at least four times daily and/or while at work.
- Do not congregate in common areas such as hallways, breakrooms, common offices, and stairwells.
- Elevators and bathrooms can only be occupied by one individual at a time.
- Conference rooms are closed and require permission from the Chair for use.
- During Phase 2 operations, Chemistry Cores are sample submission only. This policy may be revisited and subject to change as circumstances develop.

General

- **On site work is limited to work that cannot be conducted remotely.** If you can conduct your work remotely avoid coming on campus.
- **Adhering to this policy is a community responsibility.** All members of the department are required to fully adhere to the policies outlined by the Office of the Vice Chancellor for research and those laid out in this document. We appreciate your understanding as updates will likely come often as we respond to an ever-changing situation.
- All members of the Chemistry Department are expected to follow general University policy (https://research.unc.edu/covid-19/resuming/all/) related to COVID-19 as detailed by the Office of the Vice Chancellor for Research.
- Any questions and concerns regarding compliance with this policy should first be directed to your supervisor. If you are not comfortable communicating with your supervisor, SWELL has created a feedback form where you can voice questions, suggest improvements and concerns with COVID-19 protocol, and anonymously report safety infractions or failure to comply with the policies detailed in this document.
- A university hotline (Ethics Point Hotline: 866-294-8688) is also available to report policy infractions. Warnings accompanying one or two reports of failure to comply with these policies will ultimately result in HR action and suspension of on-site research activity for individuals or entire groups.

Staying healthy

- **Behavioral change works.** Use common sense. Adopt a mindset where everyone, including yourself, is infected and use appropriate precautions.
- Wear a mask in public and shared spaces.
- Avoid touching your face before sanitizing your hands.

- If you are immunocompromised or in a high-risk state (e.g., over 65, pregnant, have chronic lung disease, asthma, HIV, diabetes, chronic kidney disease, severe obesity, serious heart or other underlying conditions) remain home and avoid coming to campus.
- If you have tested positive for COVID-19, been referred for testing, or awaiting test results, contact your supervisor immediately and don't come on campus. Stay home and self-quarantine for at least two weeks.

Before coming to campus

- If you are experiencing any of the following symptoms do not come to campus and contact the UNC Employee Occupational Health Clinic (919-966-9119) or Student Health (919-966-2281) as well as your PI or direct supervisor.
    - Cough
    - Shortness of breath or difficulty breathing
    - Fever (>100.4°F; 38°C)
    - Chills
    - Repeated shaking with chills
    - Runny nose or new sinus congestion
    - Muscle pain
    - Headache
    - Sore throat
    - Fatigue
    - New GI symptoms
    - New loss of taste or smell
    - Chilblain-like lesions (bumps or colored patches) on feet and hands
- Check your mask fits comfortably and securely.
    - **A mask is required to enter all Chemistry Buildings (see below).**
    - Acceptable face mask options will be available on the EHS website (https://ehs.unc.edu/)
    - Instructions for wearing, caring for, and handling surgical masks can be found here.
    - Instructions for creating your own cloth mask, as well as proper practice for wearing, caring for, and handling can be found here.
    - See below for general instructions related to mask care and use.

Noncompliance

As we approach the campus reopening for the fall, the seriousness of COVID 19 is unfortunately **increasing**; moving forward, the Department will implement a 3 strikes policy (effective July 15, 2020), where three reports of noncompliant behavior will ultimately result in suspension of research activities for an individual or a group in chemistry personnel residing buildings (including Kenan, Caudill, Venable, Murray, etc.). Our goal is to emphasize the seriousness we place on our department's safety and well-being. We implore you to routinely emphasize the importance of adhering to the policies around social distancing, mask wearing, and frequent sanitization of hands and surfaces. Please keep in mind that such practices are meant to protect EVERYONE in the Department and campus at large, including YOURSELF.

Travel policy

The University lifted the 2-week quarantine requirement following travel outside North Carolina. This announcement is coming at a time of increasing COVID-19 cases in North Carolina and many of our surrounding States. Although the quarantine requirement has been lifted, we want to emphasize that, irrespective of travel, if you have been or will be in a situation where social distancing will not be possible, communicate with your PI or supervisor immediately to determine the right course of action. The departmental guidance is that a 2-week quarantine is strongly advised when social distancing and mask wearing has been compromised.

Accommodations and Flexibility Requests for Faculty, Staff, Graduate Students and Postdocs

Faculty and Staff

The University recognizes that faculty and staff may have health or other concerns and is working to address those needs while also furthering the instructional mission of the University.

- If you have your own health condition that puts you at high risk of COVID-19, you may visit the Equal Opportunity and Compliance Office's COVID-19 Accommodations page to request an accommodation under the Americans with Disabilities Act (ADA).
- If you have other reasons for requesting flexibility, you may contact Laura Yurco (laura_yurco@unc.edu) and your supervisor directly and specify (1) the general reason for your request and (2) what form of flexibility you are requesting (i.e., remote teaching/work, alternative schedule, additional PPE). Flexibility may be provided for concerns including age, pregnancy, child or elder care responsibilities, living with or caring for someone who is high risk, or other concerns. You are not required to provide personal or family health details to make this request; rather, simply noting that you live with or care for someone who is high risk is sufficient.

Graduate Students and Postdocs

The University recognizes that graduate students and postdocs may have health or other concerns and is working to address those needs while also furthering the instructional and research mission of the University.

- If you have a situation that requires you to request leave for all or a part of your work time you have two leave options which are detailed here: **hr.unc.edu/benefits/ffcra**
    - Emergency Paid Sick Leave (EPSL)
    - Expanded Family Medical Leave (EFML)
- If you have a reason for requesting flexibility with your schedule discuss with your supervisor.

Please be aware that requesting accommodations, leave or flexibility is entirely voluntary. Your needs may have already been met by flexibility and precautions put in place by the University, School, or Department, and if that is the case, you do not need to make a request. If you do request leave, accommodations or

flexibility, that request will start a process to find a solution that will meet the needs of both you and the University. We may not be able to provide exactly what you request in every case, but we will engage with you to work towards a mutually-agreeable plan. All requests will be treated confidentiality, and retaliation for making such a request is prohibited by the University.

Working on site

- Lab schedules should be coordinately designed to keep on site work as brief as possible.
- Your group is your team. Communicate and collaborate to creatively come up with plans for addressing the challenges of scheduling on site work. If you feel the laboratory is too crowded, contact you supervisor immediately.
- At this time, no one is required to work on-site, expected to do so, or asked to justify their decision. This policy may be revisited and subject to change as circumstances develop.
- Work-related needs and concerns should be discussed with your supervisor. If you feel pressure to come to lab outside your scheduled hours, contact your supervisor or the SWELL committee to report it anonymously using the link above.

When someone tests positive for COVID-19

Any decisions regarding how to respond to a COVID-19-positive case will be made through close communication with Environment, Health & Safety, Campus Health, and the County in which the individual resides. There are three primary goals dictating protocol when someone tests positive for COVID-19:

1. Provide the best possible care to anyone testing positive for COVID-19.
2. Determine who came in close contact with the individual and evaluate their health to determine next steps. Close contact is defined as spending 15 minutes or more within 6 feet of a person who has tested positive for COVID-19. **Transient exposure is not considered a concern, especially if masks are worn.**
3. Protect an individual's privacy. **Do NOT reveal the identity or share any personal information related to someone who has tested positive for COVID-19, unless formally engaging with officials involved in contact tracing.**

Once there is a confirmed case of COVID-19 infection, the University reports the incident to the County Health Department where the individual resides and contact tracing is initiated. Next steps will include:

- Environment, Health & Safety and Campus Health working closely with the County to determine exposure risk, and **alerting individuals who are determined to be in close contact with the patient**. These agencies will work closely with an individual's department and/or supervisor if broader action is required.
- Individuals determined to have been in close contact with a COVID-19-positive patient will be tested by their relevant Health Department.

    - If the tests are negative for COVID-19, additional guidance will be given regarding quarantine and monitoring for development of symptoms.
    - If the tests are positive, contact tracing will be extended to identify close contact individuals, who will be interviewed by Campus Health and/or EHS to determine next steps.
- Environment, Health & Safety will be responsible for bringing in cleaning crews to thoroughly sanitize areas identified during contact tracing as places a COVID-19 patient has occupied or traversed.

When someone is concerned they have been in close contact with a COVID-19-positive individual

If someone suspects they have been in contact with an individual exhibiting signs or symptoms of COVID-19, they should contact the University Employee Occupational Health Clinic (919-966-9119) for University employees or Campus Health (919-966-2281) for students. The Health Clinic will work to determine if the close contact individual is confirmed positive. Continue to monitor health closely, maintain social distancing, and practice good hand hygiene until further information is supplied by the Health Clinic.

Masks

- **Face masks should be worn at all times while on campus.** Be aware that virus-containing droplets can remain in stagnant air for 8-14 minutes. For masks in laboratory, see below.
- A standard 3-ply non-medical grade mask will be provided by the university and is expected to be reused several days in a row. If masks need to be replaced more often, groups will be responsible for purchasing their own.
- Do's and Don'ts of wearing a mask:
    - Do:
        - Wash your hands thoroughly (≥20 sec) before putting on and taking of your mask.
        - Store your mask in a paper bag when not in use.
        - Practice social distancing when wearing a mask.
        - Make sure it covers your mouth and nose and fits snugly against the side of your face.
        - Dispose and replace your mask if it becomes contaminated with chemicals or is difficult to breathe through.
    - Don't:
        - Touch the front of your mask when handling. Once on, the front of the mask is considered contaminated.
        - Touch your eyes, nose, or mouth when removing the mask.
        - Let the mask hang on one ear or on below your chin.
        - Leave your mask exposed and laying around.

Masks should cover mouth and nose and never be left hanging on one ear or below the chin.

- Adjust your mask if others are around. Leave the room, wash your hands, and then readjust your mask.

Morehead autoclave use:

Guidance and information to help prevent COVID-19 transmission when using the autoclave in Morehead Labs during construction. This policy will be revisited once Morehead Labs reopens.

- One key will be issued to each group requesting access to the autoclave in Morehead Labs that unlocks the first-floor door on the bridge between Kenan and Morehead. **This door must remain unlocked during class times (see "Accessing buildings" below) and locked at all other times. Please ensure it locks behind you and is locked when you exit the building.** Note, the lock is still a little tricky. If you turn the handle to open the door, you can then align the two doors to allow the deadbolt to seat correctly into the stationary door. If you have any trouble with the door, contact Fred Young (fyoung@unc.edu; 919-417-2560) or Randy Simmons (rlsimmon@email.unc.edu; 336-266-0949).
- Before entering Morehead Labs, users should call or email Fred Young or Randy Simmons who will alert the construction foreman that Chemistry personnel are entering the construction area.
- Gloves can be worn when transiting through Morehead Labs but must be disposed in the trash can in the hallway immediately after exiting the building and before entering any other campus building.
- Construction workers are required to wear face masks while in the buildings. If you see them in violation please let Fred or Randy know and they will alert the foremen and have the workers sent home.
- Construction work ends at 5pm. Autoclave sign-up times are being extended to 11pm to accommodate after-hours use.

Accessing buildings

- **Do not hold the door open for anyone or leave doors propped open.**
- Masks must be worn to enter Chemistry buildings.
- Visitors, visiting trainees, or guests are not allowed on campus or our buildings unless preapproved by the Vice Chancellor for Research.
- Note UPS and FedEx have key card access to our buildings. Consider coordinating with delivery personnel to leave packages in the hallway to minimize interactions.

Fall 2020 building access

Starting 8/7/2020, building doors designated "unlock" below will be on the following schedule:

- 7:00am-7:00pm Mondays, Wednesdays, and Fridays
- 7:00am-8:00pm Tuesdays and Thursdays except for holidays for this semester

Kenan:

- Ground Floor B-tower North entrance unlocked
- First Floor Plaza B-tower East entrance unlocked
- All other doors remain locked/keycard access at all times

Caudill: All doors remain locked/keycard access

Morehead:

- Kenan/Morehead 1st floor bridge unlocked (08/07 – 11/12)
    - 12pm-7pm Monday and Wednesday
    - 12pm-6pm Tuesday and Thursday
    - Closed Friday
- All other doors remain locked at all times

Murray/Venable:

- Ground Floor doors on courtyard and parking lot unlocked
- First Floor doors on plaza unlocked
- First Floor Chemistry Lab exterior doors locked/keycard access
- 2nd Floor doors (West) locked/keycard access
- First and Second Floor exterior stairwell doors locked/keycard access (exit from G202)
- 3rd and 4th exterior stairwell doors unlocked

Limited access will be available to undergraduate researchers between 7am-7pm on weekdays.

Fall 2020 building circulation

Signs designating directional flow have been posted on:

- Kenan Ground and First Floors
- Murray Venable Ground and First Floors
- Morehead Labs

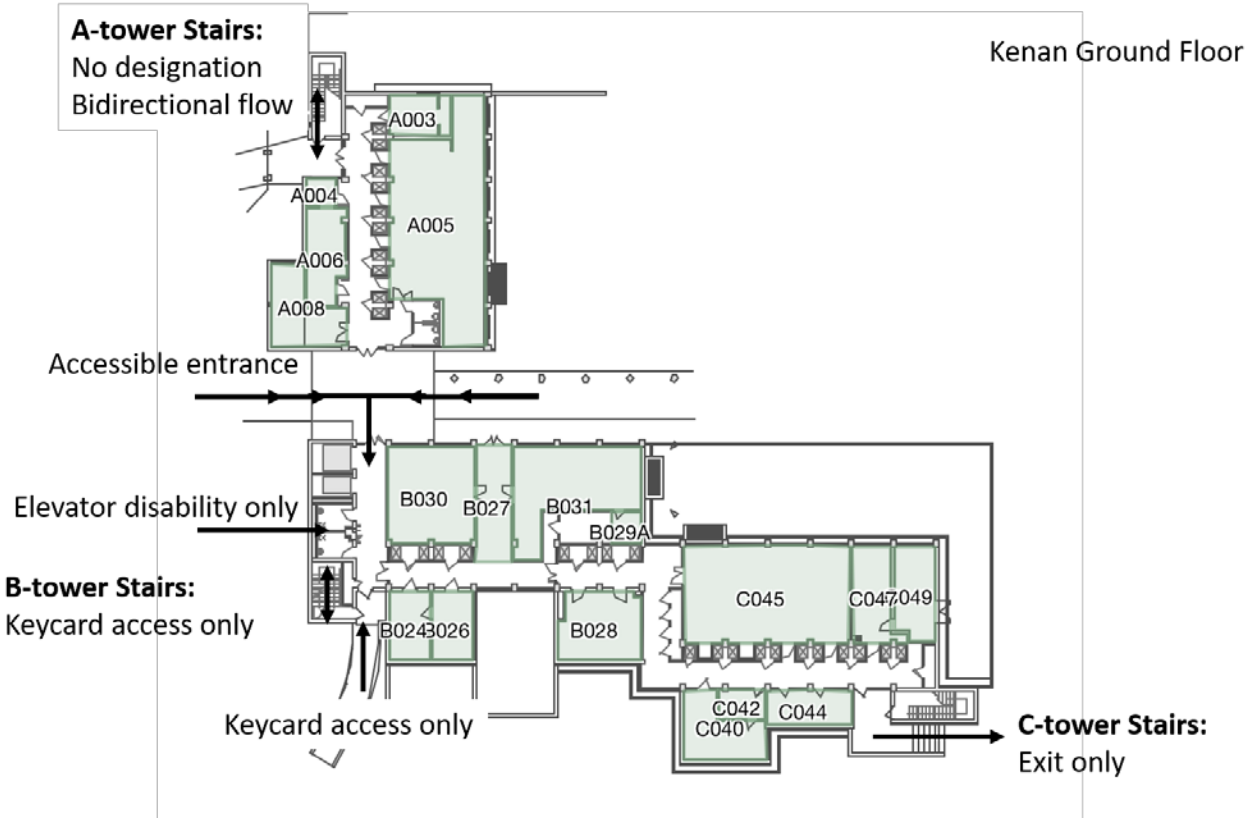
And are included in the floorplans below. Research floors will remain undesignated.

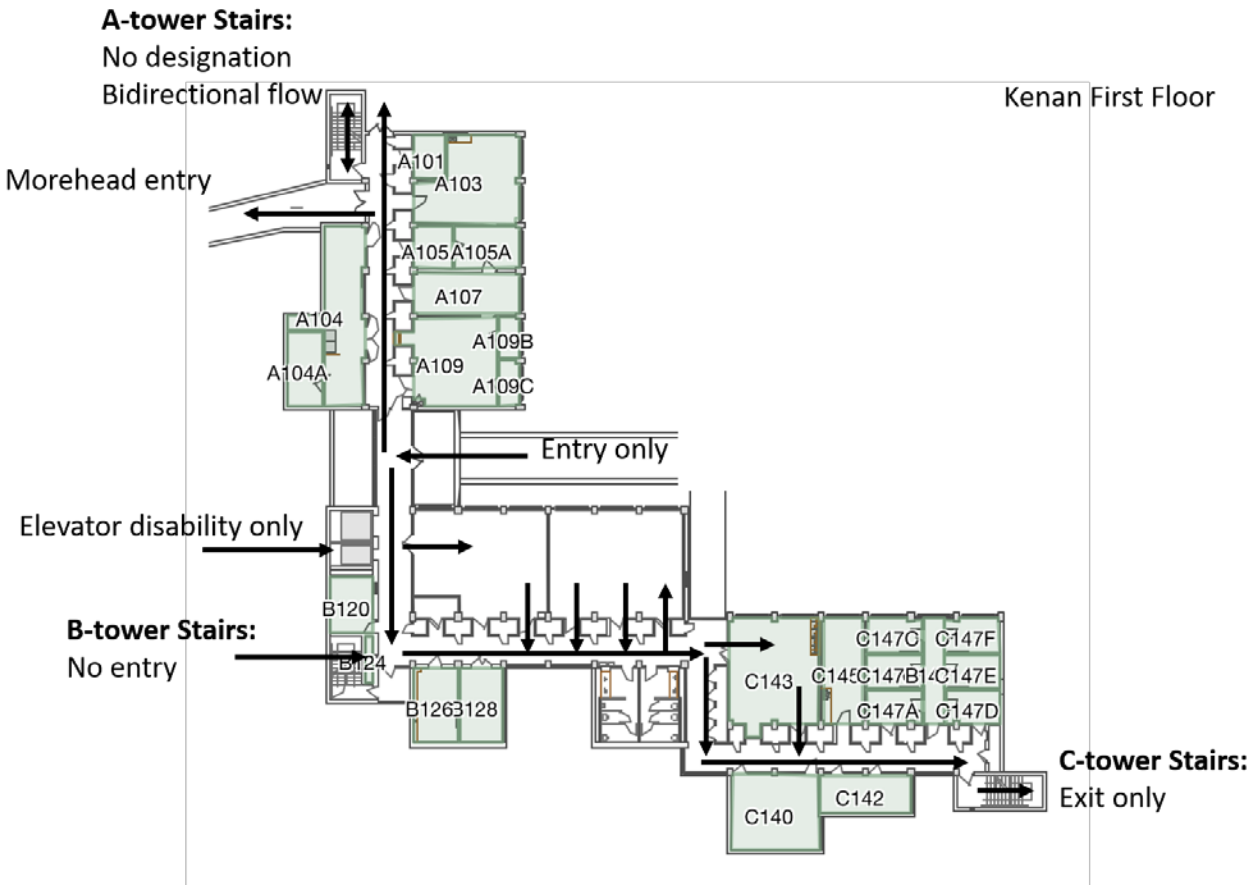
Of note:

- Caudill Labs will remain keycard access only
- Research floors in the other buildings will be closed to classroom traffic
- Elevators are for accessibility needs only on the ground and first floor on Kenan. The B-tower stairwell will (hopefully) have keycard access installed soon and will remain locked. Please use this stairwell to access the upper floors or to reach the elevator on the second floor. Exception: if you are using a cart or transporting something you can't safely carry, use the elevator.
- Morehead autoclave users will need to enter from the First Floor bridge in Kenan A-tower and exit through the Ground Floor of Morehead.

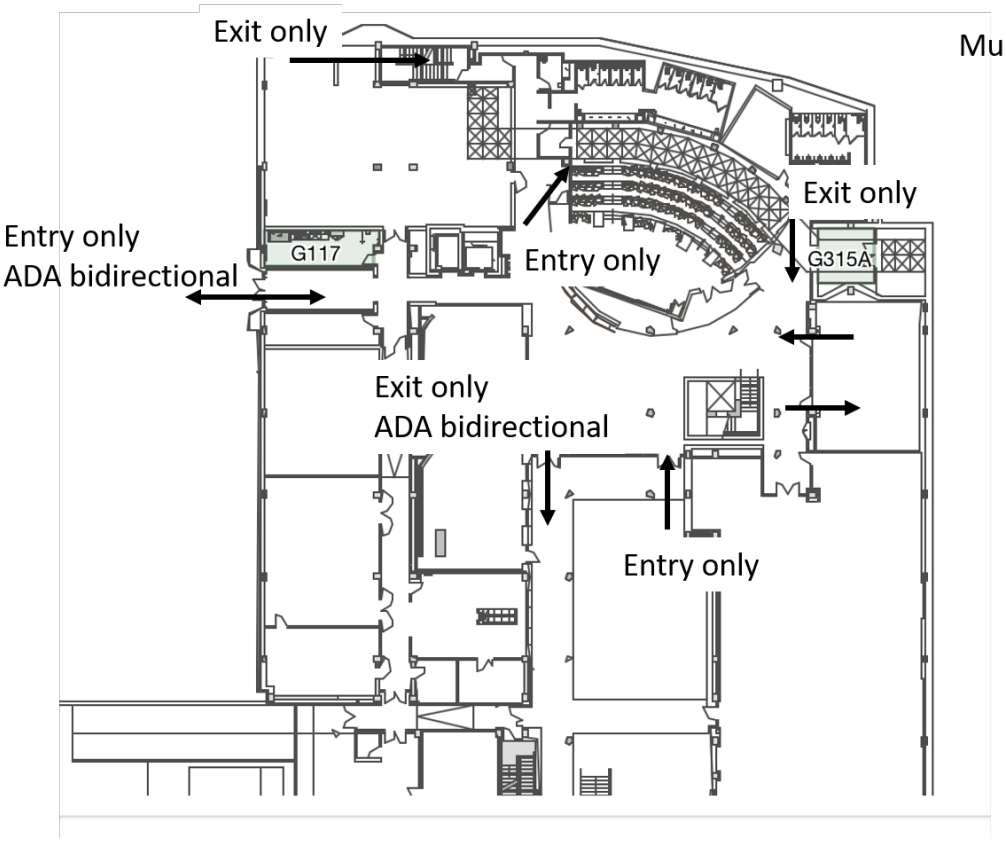
- Kenan occupants who need to access the Cores on Caudill Ground Floor should use the Second or Third Floor Breezeway to enter Caudill.
- VWR stockroom should be accessed by entering through the Kenan First Floor B-tower Plaza (double doors) and exiting through the A-tower doors.

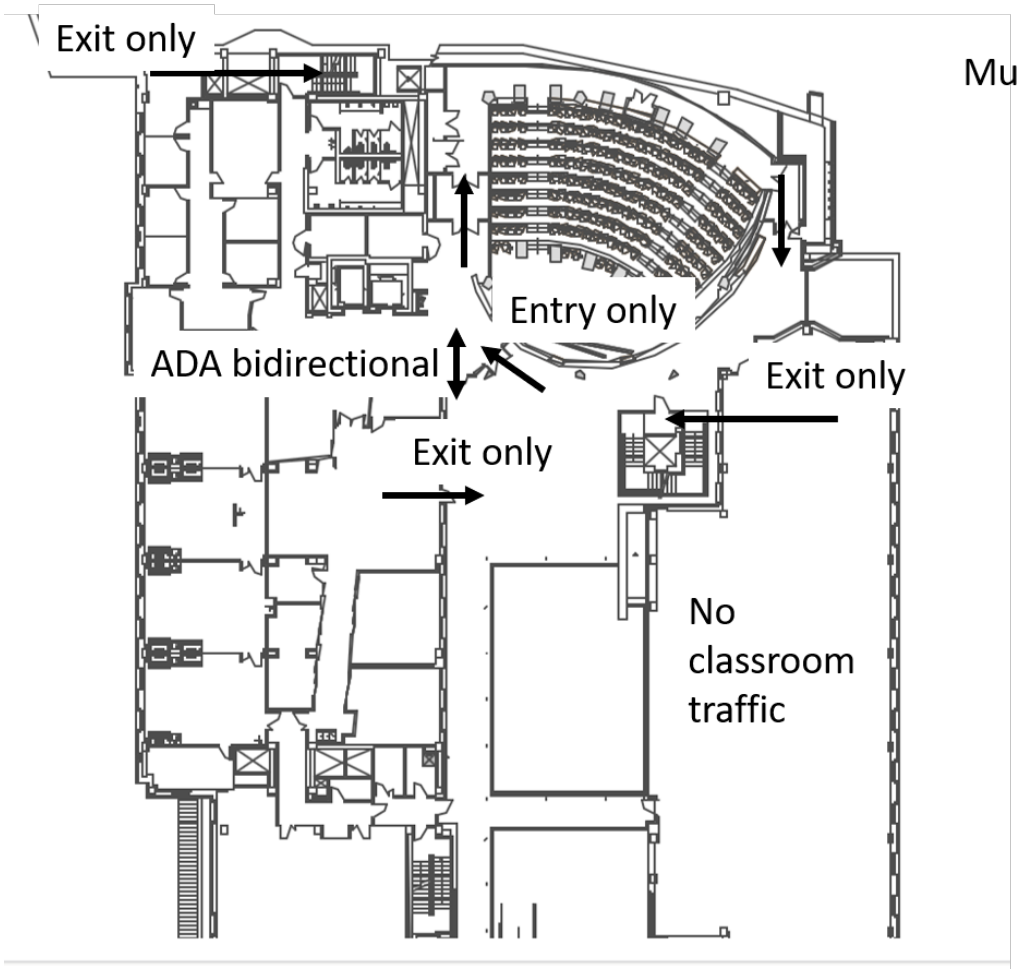
If you must access floors with undergraduates attending class, try to do so when class is in session. Please make every effort to adhere to the directional flow at all times. There will be occasions when this won't be possible, such as to go to the bathroom, which is fine.




A-tower Stairs:
No designation
Bidirectional flow
Kenan First Floor
Morehead entry
A101
A103
A105
A105A
A107
A104
A109B
A104A
A109
A109C
Entry only
Elevator disability only
B120
B-tower Stairs:
No entry
B124
B126
B128
C147C
C147F
C143
C145
C147B
C147E
C147A
C147D
C-tower Stairs:
Exit only
C140
C142

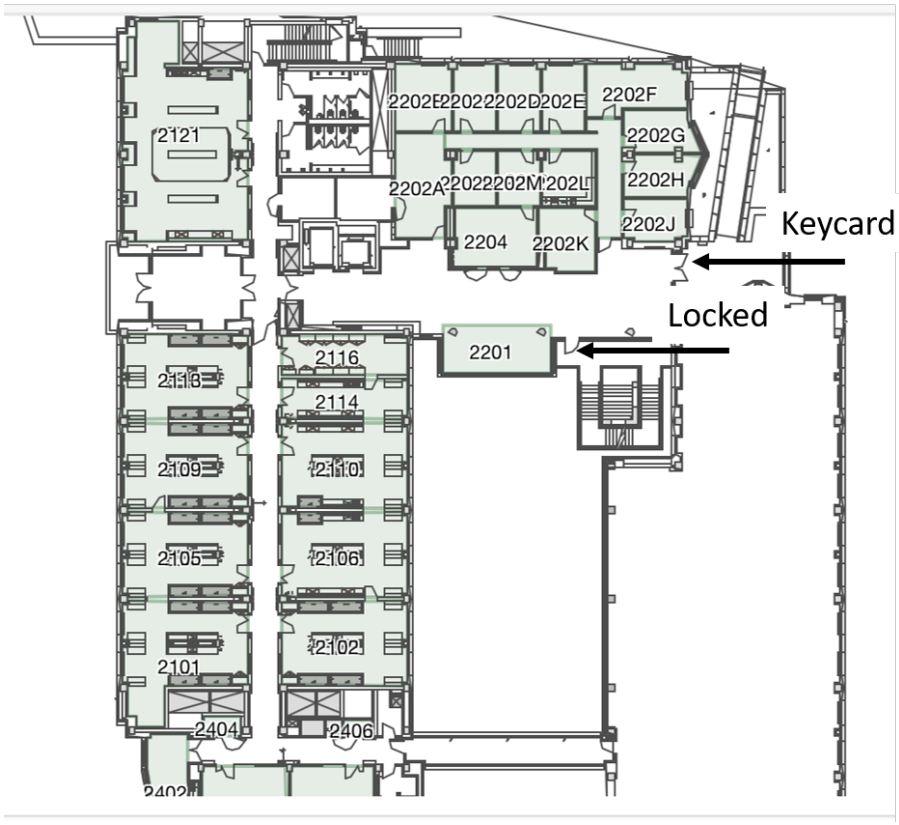
Murray Ground Floor



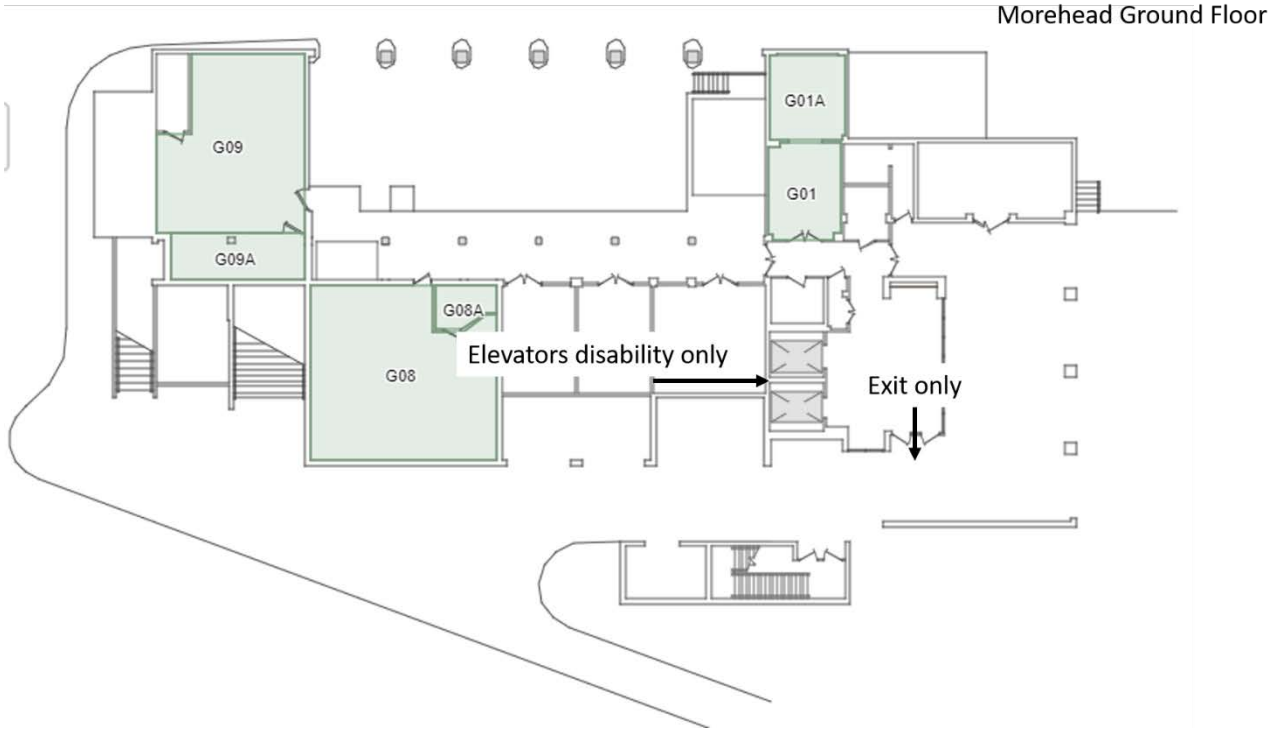


Murray First Floor

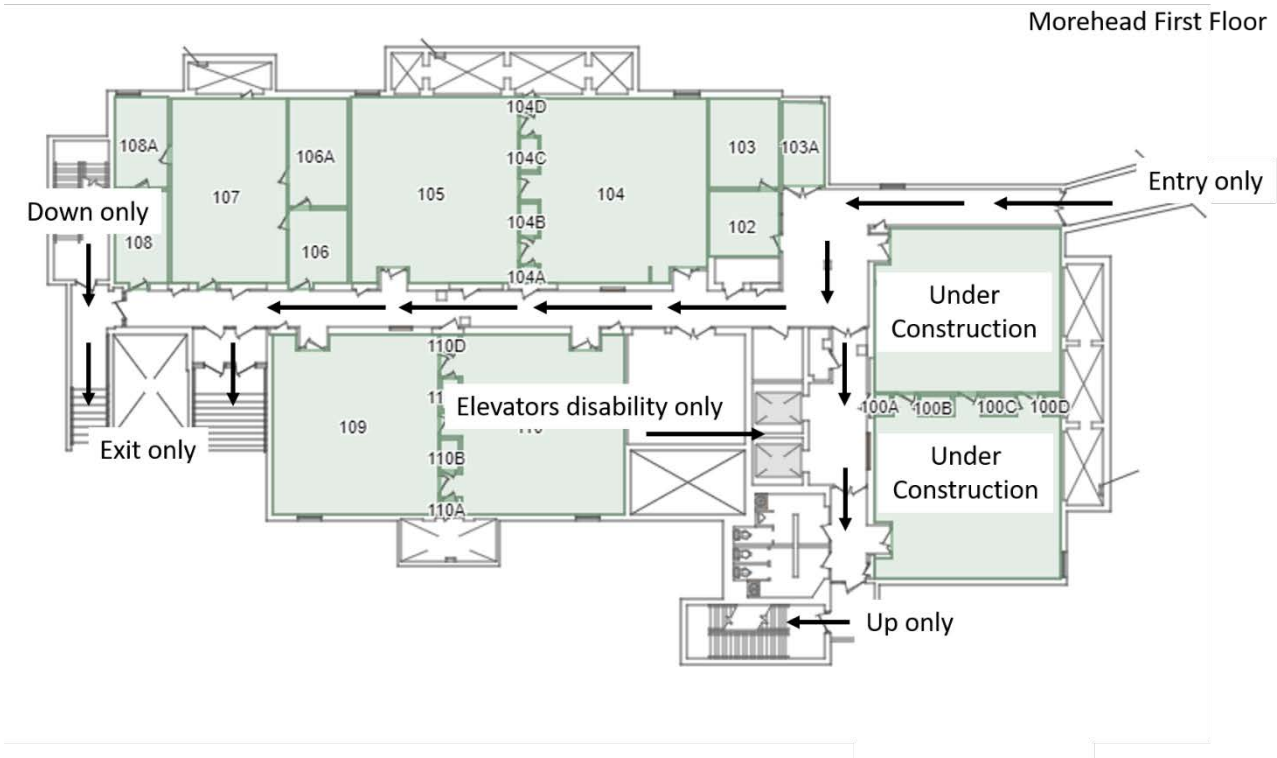
Murray Second Floor



Morehead Ground Floor



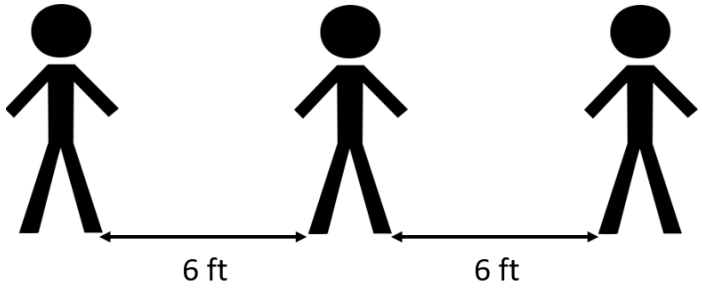
Morehead First Floor



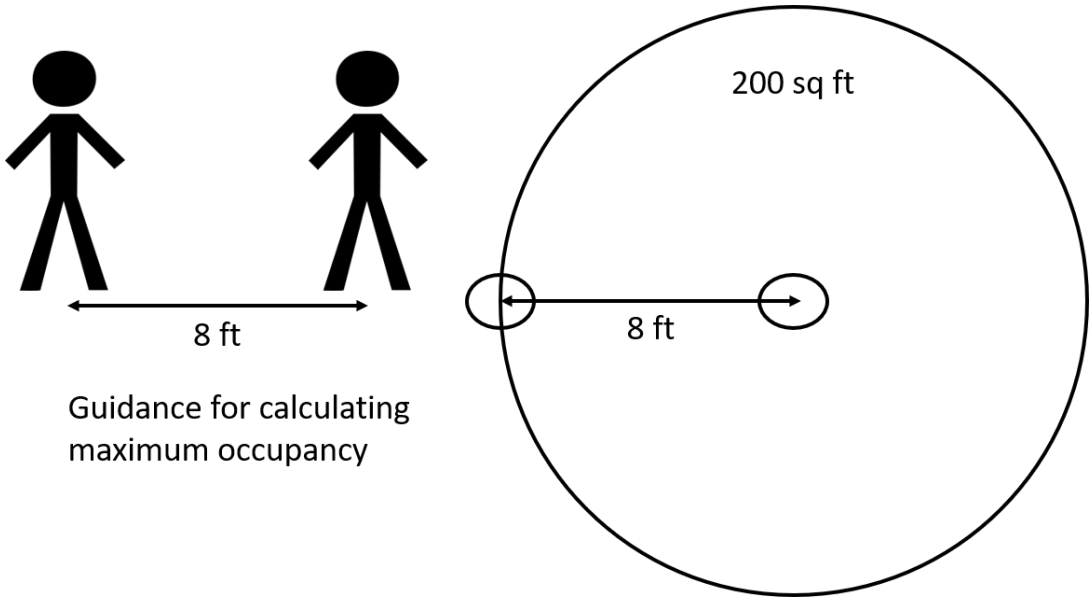
Morehead 2nd-4th Floors

Social distancing

- The university has mandated each department operate at ≤50% capacity, maintaining at least 6 ft distance between individuals.



- Personnel density inside laboratories should not compromise each individual's ability to maintain 200 square feet distance (6 ft social distance + 2ft person width) from each other while working. See figure below for social distancing guidance.



Guidance for calculating maximum occupancy

- Labs should clearly post maximum occupancy levels on each room door.
- Check a room's occupancy levels before entering. If occupancy isn't visible, knock before entering.
- If you need to talk to colleagues in another lab or Core personnel, call or setup a Zoom chat. In-person meetings should only occur when there is no other choice.
- Eat food outside whenever possible. If you must eat inside, do so alone or maintain 6 ft between individuals in lab and building common areas.

Common spaces

- **The Graduate Student Lounge and confined eating spaces, such as the corner breakrooms in Caudill and Murray, can only be used to heat and store food during Phase 2.** Please plan to eat your meals elsewhere.
- Housekeeping will clean and sanitize high-touch areas such as stairwells, elevators, restrooms, and public areas using a concentrated disinfectant at least 4 times per day. They will not be entering labs or offices so waste bins should be placed in the hallway for pickup.
- Except when eating, masks must be worn in shared space even when you are the only one present because it is not possible to predict when someone else will come in.
- Empty soap and sanitization stations should be reported to Randy Simmons (rlsimmon@email.unc.edu) and Fred Young (fyoung@unc.edu).

Hallways

- Lab gloves should NOT be worn in the hallways in accordance with general lab safety.
- When entering and exiting hallways sanitize your hands at the closest sanitation stations.
- If you encounter someone else in a hallway move past one another with intention (do not linger).
- Do not congregate in hallways at any time.

Elevators

- Elevators can only be occupied by one individual at a time.
- Wash and sanitize your hands immediately before entering and directly after exiting an elevator.
- Maintain a minimum of 6 ft between individuals when waiting to take an elevator.
- Stairs should be used whenever possible when transiting between floors. If you encounter someone else in a hallway move past one another with intention (do not linger).
- Sanitize your hands before entering and upon exiting a stairwell. Stairwell doors cannot be propped open in accordance with building fire code.

Bathrooms

- Bathrooms can only be occupied by one individual at a time and entry/exit doors must remain open at all times with exception to single-occupancy bathrooms.
- Before entering a bathroom, ask if anyone is already inside or knock loudly on the door. If there is a line, maintain a minimum of 6 ft between individuals.
- We recognize urgent situations arise that may result in more than one individual in a bathroom at a time. In these cases, please maintain 6 ft between occupants if possible.
- Wash hands with soap for at least 20 seconds when **entering and exiting** bathrooms.

Conference and classrooms

- All conference rooms and classrooms are closed for general use and meetings should be conducted virtually.
- Oral exams and PhD defenses should be completely virtual whenever possible. If a conference room is required for oral exams and PhD defenses, please send a request to Donnyell Batts dlbatts@email.unc.edu or Jill Fallin jfallin@email.unc.edu and note the following:
    - Depending on needs Venable 2204 (it's always unlocked) or Kenan B229 (will provide lockbox code) will be used for these purposes
    - If using Kenan B229, a manual and admin contact info for technical assistance will be provided for Zoom
    - Only one individual should be in the conference room at any given time.
    - Choose a spot to work from and try not to use any other areas in the room throughout the duration of the activity.
    - Upon entry and before leaving, sanitize the work surface, chair, door knobs, light switches, and anything else that may have been contacted. **Do not spray solvents directly on electronics such as remote controls, shared use keyboards and computers.**
    - Ensure the door is locked upon exiting the conference room.
- 2nd Year Oral Exams: Students taking their exam should station themselves near a whiteboard/chalkboard in their lab or another classroom to answer questions from faculty, if needed.
- PhD Defenses: Attendees will be allowed to view the virtual defense, but will be dismissed by the committee chair following the open Q&A session.

Laboratories

- Every research group must submit a plan that details their policies for social distancing, shift work, sanitization, and maintaining a safe working environment. These policies will be reviewed and approved by the department Safety Committee. Submit plans to Ralph House (rlhouse@email.unc.edu).
- Each lab's policy will be included in this document and should be posted outside each lab door.
- Allowing undergraduates to work in lab is at PI discretion. Personnel capacity must remain at 50% if undergraduates are allowed to return to lab.

Determining maximum occupancy in lab

- Determine maximum occupancy levels (not to exceed 50% capacity) to maintain at least 200 square feet per person in your labs and clearly report this value on entry/exit doors.
- When determining social distancing guidelines for your lab, consider space between instrumentation, hoods, lab benches, etc. In situations where two people cannot maintain social distancing, only one person should be allowed in that space at a given time. Use tape to demarcate these boundaries on the floor or bench as needed.
- Create a schedule that limits the number of individuals in any space and keeps each shift as brief as possible. Make sure the schedule is available to everyone in the group.
- Stagger arrival/departure times by at least 30 minutes to reduce traffic in common areas. Examples of lab schedules could include:
    - 8am to 2pm and 2:30pm to 8:30pm shifts
    - One day on/one day off
    - One week on/one week off
    - One week on/two weeks off (33% capacity)
- Note, auxiliary services such as Core Labs, Admin Offices, etc. will only be available during the working day (~9am – 5pm) and should be contacted via phone, email or Zoom (information below).
- When possible, arrange equipment to maintain physical distancing. A plexiglass barrier should be installed between instruments if their proximity inhibits social distancing.
- A minimum of two people should be present when the lab is occupied. When this isn't possible, virtual monitoring should be implemented to comply with common lab safety.

Preparing to return to lab

- Be sure each member of your group who will be returning to campus has completed EHS training (https://ehs.unc.edu/)for complying with COVID19-related policy.
- Confirm your PPE supply and work through University Procurement Services to order supplies such as hand sanitizer and masks. Instructions are forthcoming.
- Consider purchasing keyboard covers and wrapping computer mouse in Ziploc bag to facilitate sanitation.
- Check isopropyl alcohol and ethanol inventory. Note cleaning wipes and disinfecting spray will be distributed across campus.

- Determine the number of plexiglass barriers you may need between instruments and face shields and order from the machine shop or BeAM.
    - For plexiglass barriers, contact Philip Thompson in the Physics Machine Shop (philip@email.unc.edu)
    - For face shields, contact Kenny Langley in BeAM (kenny@beam.unc.edu)
- Place excess seating in storage to reinforce distancing.
- Check instrumentation/bring back online.
- Modify SOPs to include sanitization protocols and post in a visible region on or around the instrument.
- Update websites with relevant information.
- Wipe lab surfaces using ≥70% EtOH or IPA solution.
- Schedule Zoom meetings to talk through the new operating procedures before your group begins Phase 2 operation.

Masks in lab

- Masks should be worn at all times while in lab.
- If University-approved masks are deemed inappropriate for lab operations, please detail your reasoning in the lab policy document and plan to provide appropriate masks (e.g., fire-proof, charcoal filtered).
- If at all possible, use tight fitting masks to help prevent fogging of safety glasses.
- All reactions should be performed in a hood whenever possible to mitigate VOCs interacting with masks. When this isn't possible, face shields and plexiglass barrier should be employed.
- Should a mask become contaminated by chemicals, it should be disposed and replaced immediately.

Sanitization practices

- Hands should be washed immediately upon arrival to lab and immediately before leaving.
- Wash and sanitize your hands hourly while on campus and always after talking with and/or handling material that was in contact with another individual.
- Lab surfaces and high touch areas within lab should be sanitized using ≥70% EtOH or IPA solution immediately before and after use and at least four times while at work.
- Thorough surface cleaning should be performed at the beginning and end of a shift.
- Shared equipment should be sanitized before and after use.

Communication and record keeping

- Check a room's occupancy levels before entering. If occupancy isn't visible, knock before entering.
- If you need to talk to colleagues in another lab or Core personnel, call or setup a Zoom chat. In-person meetings should only occur when there is no other choice.
- Service engineers and vendors are expected to comply with departmental and lab policy, and should pre-arrange visits, receiving permission from the PI before entering lab.
- Personnel logs should be kept daily to aid with contact tracing.

Offices

- Only one individual can be in an office at a time.
- Always wear a mask in common office space, even when you are the only one present because it is not possible to predict when someone else will come in.
- Common offices should generally be limited to storing personal items that cannot be in lab and should remain unoccupied as much as possible.
- Masks do not need to be worn in personal, single-occupancy, offices as long as the door remains closed.

Chemistry Core Laboratories

- Chemistry Core Labs will be operating on fee-for-service (sample drop-off only) and in limited capacity for shared use.
- Directly before entering the core laboratory please wash your hands with soap, either in the bathroom or a lab sink.
- Core labs will be wiped down three times a day and at core personnel discretion.
- Isopropyl alcohol solution will be available with paper towel to sterilize commonly used surfaces, such as keyboards, mice, countertops. Please do not spray surfaces directly, use paper towel.
- **If you feel like an instrument surface needs to be sterilized consult core personnel for assistance. Do not wipe an instrument without prior consultation with core personnel.**

Nuclear Magnetic Resonance

Increased user access to the NMR Core

Access to the NMR spectrometers will gradually increase in July. Some spectrometers will continue to operate in automation and others will be available for user controlled experiments and variable temperature work. As detailed below, time to access the specific NMR spectrometers will be reserved using the iLab calendars.

This applies to users who have been trained in the NMR core already. New training will be scheduled later in July, possibly in early August. Our first objective is to keep up with the demand for NMR data while maintaining appropriate safety protocols (social distancing, sterilizing surfaces, etc.) and maintaining the spectrometers. A smooth transition back to regular use will free up time on the spectrometers and for NMR staff to begin training sessions.

When setting up samples, use clean, disinfected spinners available on labeled racks. Spray bottles and paper towels are available by the spectrometers to clean keyboards, PC mouse, and counter tops. Keyboards have been covered with a plastic sheet to protect the keyboard from cleaning

solutions. NMR Staff will clean surfaces, spinners and door handles on a 1-2 hour basis. You are encouraged to use the provided supplies to clean surfaces before and after your use.

Samples will be removed from the NEO400 and the 400NB spectrometers in the morning, after lunch and at the end of the day. They can be picked up from the NMR Tube racks outside of CA050.

MASKS ARE REQUIRED AT ALL TIMES. NO GLOVES are permitted in the NMR Core.

The 500 MHz NMR spectrometer. Starting July 13, trained users can reserve time to run samples on the 500 MHz spectrometer according to these guidelines:

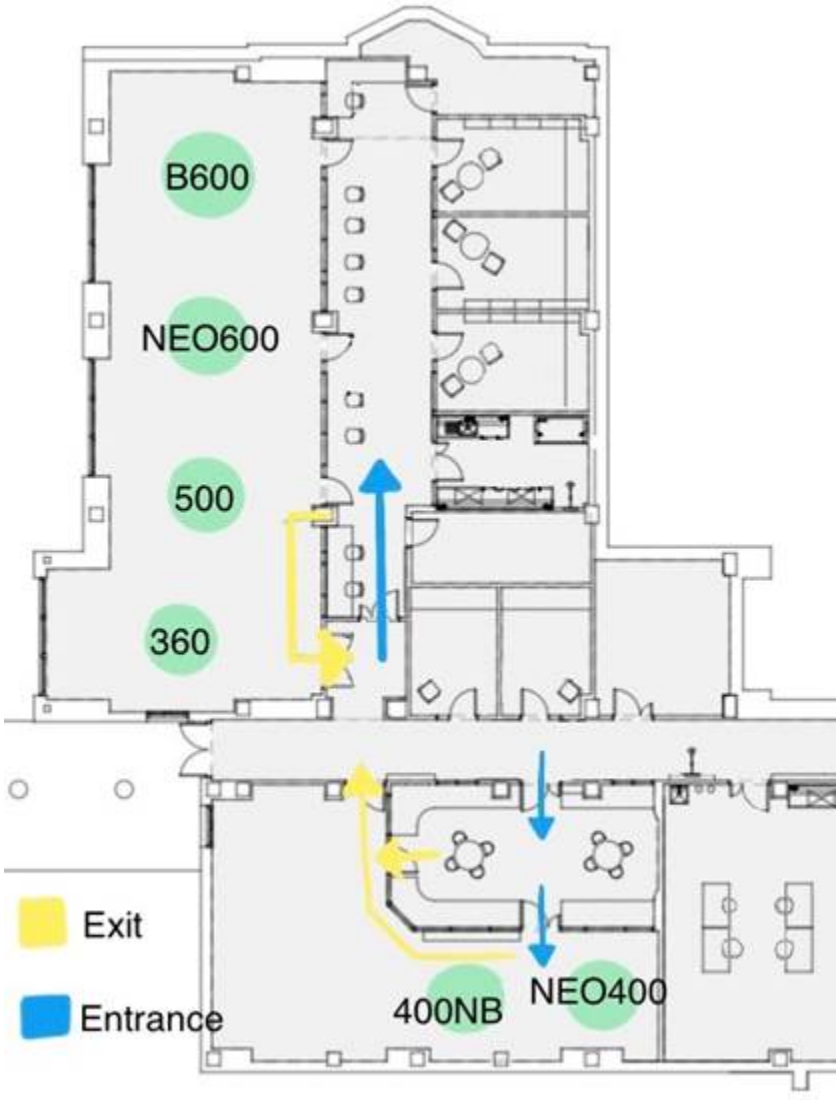
- Only enter the NMR room during your reserved time
- People who extend their time when other reservations exists risk a suspension of NMR access
- You must allow 10 minutes between reservations
- Reservations lasting 1 to 3 hours of time can be reserved in advance and no more than two weeks in advance
- Reservations less than 40 minutes can be reserved the same day
- Enter the main door for CA 051 and exit through the magnet room doors (CA050). See below.
- If a user is at the 500 in the high field control room (CA051), you must wait at least 6 feet away.
- Staff may be in the control room or walking to or from offices in the area. At this time, we can only permit one non-staff person at a time near the 500.

400 MHz NMR spectrometers. Both the 400NB and the NEO400 will be available for people to set up automated runs. The NEO400 will start July 13 and the 400NB will start July 20. Trained users can reserve time to run samples on the 400 MHz spectrometers according to these guidelines:

- Both 400's will remain in "automation mode"- the NEO400 starting July 13 and the 400NB starting July 20. This is different than pre-COVID procedures for the NEO400.
- You must reserve time to access the spectrometers! This is different than pre-COVID procedures for the 400NB. If you have been trained in the NMR Core and need access to the 400NB calendar in iLab, please send an email request.
- Samples can be placed on the sample changer and information entered in Icon NMR.
- Reserve 5-10 minutes to drop of your samples and enter your information
- Allow 10 minutes between your reservation and other reservations.
- Enter the main door for CA 044 and exit through the magnet room doors (CA046). See below.
- If a user is at the spectrometer, you must wait at least 6 feet away.
- Staff may be in the control room or in the magnet room. At this time, we can only

NEO600 and B600 NMR Spectrometers. Drop off at 11am and 5pm will continue. Starting in August, direct access to the 600's can be requested for non-standard experiments.

	User run experiments	User sets up automation	Drop off
NEO400	NA	Starts July 13	Last day, July 10
400NB	NA	Starts July 20	Last day, July 9
500	Starts July 13	NA	NA
NEO600	By request, starts in August	NA	Continues through July
B600	By request, starts in August	NA	Continues through July



- Submit sample information electronically, using either of the following options:
    - **Through the Submission Form online** - http://chemnmr.web.unc.edu/home/covid-19-announcement/sample-submission/
    - **Fill out the template (link to download at the bottom of the page) and email the completed form to terhorst@live.unc.edu**
- We are now moving to a sample labeling standard and not using the position number on an NMR tube rack. Label your NMR tube(s) using your initials, hyphen, PI initials, hyphen, number, for example AC-AM-1
- Hand written information is no longer accepted. Sorry! It is becoming a challenge interpreting everyone's handwriting.

- Users can now submit samples by 1:00 PM on Tuesday through Friday. NMR staff will attempt to return data the same day to the extent possible and have the samples available for pick up the next day by 1:00PM.
- Be clear when submitting sample information, labeling NMR tubes and providing as much experiment requirements/parameters as possible. Experiments will run on the NEO600 or the NEO400.
- Samples not picked up will be removed Friday afternoon at 2:00pm.
- You can email, text, or call with questions. If a more in-depth discussion is required, we will schedule an appointment using Zoom.
- We are also discussing a process to safely increase utilization of the NMR Core when the department and the university begins a ramp-up of all research activities.
- Contact Marc ter Horst (terhorst@email.unc.edu) with any questions

Mass Spectrometry

The Mass Spectrometry Core will operate under SAMPLE SUBMISSION ONLY during Phase 2 reopening within the Department of Chemistry.

- All users should submit samples in the MS Sample Drop Box located on the door of Dr. Ehrmann's office, Caudill 052.
- The sample should have an iLab sample submission accompanying it. For users with multiple samples in a single drop off, please download, complete, and attach (upload) this Excel spreadsheet to your iLab submission. Only submit one sample submission per batch of samples.
- Diane will collect data for all users according to the specifications supplied in your sample submission form.
- Data files will be emailed to individual users via WeTransfer, an online file transfer platform.
- Users and clients will be granted access to our remote workstation PCs. Users and clients can review data via Xcalibur, FreeStyle, etc. on these machines.
- Remote workstation PC access can be reserved in iLabs via our Workstation calendars.
- All users will be given the remote access passwords and calendar access at the beginning of Phase 1, regardless of their instrument training status.
- We will continue to generate data reports for clients and users who are NOT trained on the instrumentation at this time.
- Only TWO individuals are allowed in the MS Core Labs at a time (Ca 040, Ca 009).
- All persons inside of the MS Core are required to maintain a minimal physical distance of 6 feet and wear a face mask at all times.
- Users of the Catalysis Center equipment will need to maintain physical distancing while working in Caudill 009 at all times. We particularly want to caution wet-side glovebox users of the proximity to the mass spectrometers. Please work to schedule glovebox usage to stagger with Diane's need for access to the mass spectrometer.

- Core personnel are available via email, text, or phone for questions. If a more in-depth discussion is required, we will schedule an appointment using Zoom.
    - Diane and Brandie will be accessible on demand via Zoom through our Personal Meeting IDs:
        - Diane (PMI 562 601 0782) 9 -12 pm daily
        - Brandie (PMI 906 063 0067) 1-5 pm daily
    - If you have any issues reaching us, please email or text and we will respond with a best time.

Xray

- No one except the facility director, Josh Chen, will be allowed to access the XCL.
- All samples will be run by Josh Chen by appointment only.

To submit a sample:

Visit XCL iLab service page (https://uncch.ilab.agilent.com/service_center/4879/?tab=services) to initiate a request. Be sure to provide all necessary information including proposed chemical formula, chemical structure in jpg, pdf, or ChemDraw format, desired data collection temperature, and whether the sample requires determination of absolute configuration.

Once the sample request is submitted, Josh Chen will set the appropriate service quote via the iLab system for you to accept. The clearly labeled sample can then be dropped into the XCL receiving basket and taken into possession by XCL personnel immediately by appointment.

The basket is located in Caudill Laboratory Room 053. The sample label must include:

- Your name
- A sample notebook code clearly written on the vial/label that matches the iLab submission

Samples will be run in the order received. If you plan to submit an air-sensitive sample, this should be indicated in the request email and scheduling the submission should be worked out with Josh in advance to ensure the sample can be run in a timely fashion. You will be notified by email when the sample has been run.

All requests for data from the XCL should be sent to Josh Chen at joshchen@email.unc.edu.

Electronics Design

- Electronics personnel will continue work off site but will come on site by appointment only.
- Any meetings with Electronics personnel should be conducted virtually using Zoom whenever possible.
- The Electronics lab will be open one day per week from 8 AM to 5 PM on Wednesdays for repairs and construction only.
- Repairs:
    - A new iLab work request should be initiated for each repair.

- If the repair is **Priority 2** (Normal) or **Priority 3** (as time permits):
    - If the instrument can be transported, it can be dropped off at Kenan Labs Rm C240 on Wednesdays between 8 AM and 5 PM. All delivered equipment must be thoroughly sanitized prior to delivery.
    - If the instrument is too large to transport and must be repaired in-place, call one of the Electronics Core personnel below to arrange a time to meet.
  - If the repair is **Priority 1** (Immediate) please call one of the Electronics Core personnel below to arrange a time to meet.
- Design Support or Consultation:
  - Contact the appropriate Electronics Core personnel below to arrange a time to meet. Meetings can be held by phone, ZOOM, or in person as necessary during normal working hours. Text, Skype, and Facetime may be possible communication methods as well.

CONTACT INFORMATION

Collin McKinney, Director	collin@unc.edu	919-452-2565 (cell)
Matthew Verber, Engineer	mverber@unc.edu	262-385-1863 (cell)
Regent Joubert, Technician	joubert@ad.unc.edu	919-594-9830 (cell)

NOTE: Repairs or consultations requiring lab visits can only occur if the addition of the Electronics Core personnel doesn't compromise social distancing requirements and all lab occupants are adhering to departmental guidelines and wearing a mask.

Laser and fabrication labs

Before accessing EFRC facilities, each person must complete the online EHS training for best practices regarding COVID-19: https://apps.fo.unc.edu/ehs/training/protecting-the-carolina-community-from-covid-19/

In the lab spaces, each person should:

- wash their hands upon entering and before exiting the lab
- wear a mask (and possibly gloves but not sure if that's really helpful)
- wipe down all equipment they touch with disinfectant or 70% ethanol as they are leaving the space.

Wearing gloves at all times is not necessary given that there isn't frequent physical human contact.

Kyle Brennaman will go in to the lab to make sure everything is working properly after a ~2-month hiatus. Yet, with the guidance to work remotely to the extent possible, there will likely be days that he is not in the lab to assist students. He will do my best to respond to emails in a timely manner. Please contact Kyle Brennaman (kyleb@ad.unc.edu) for more information.

- The Cary 5000 and Raman instruments are confirmed to be in working order.

- Going forward, paper calendars will not be used for reservations of EFRC instruments. Except for the walk-up instruments (e.g., profilometer), all reservations will be made using the Google calendar.
  Username: EFRCUN@gmail.com
  Password: instrument_reservation

  (Note the changed password.)

- The Raman, Cary 5000, and Edinburgh emission instruments have been added to the Google calendar.

CHANL

As UNC begins a phased ramp-up of operations, including laboratory spaces, CHANL is working to develop protocol for users entering the facility. The protocol is based on guidance from the UNC's Chemistry Core Directors and the CDC (https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html) and adapted for CHANL's specific environment.

Know how it spreads

- The best way to prevent illness is to avoid being exposed to this virus.
- The virus is thought to spread mainly from person-to-person.
- Between people who are in close contact with one another (within about 6 feet).
- Through respiratory droplets produced when an infected person coughs, sneezes or talks.
- These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
- Some recent studies have suggested that COVID-19 may be spread by people who are not showing symptoms.

Contacting CHANL staff for support

- We cannot guarantee that CHANL staff will be on site
- If you encounter an issue, contact the appropriate staff member via email or phone
- If needed, connect to staff via their private Zoom link by using mobile/laptop in lab space (link to be provided later)
- Staff will make a visit to campus if the issue cannot be resolved remotely

Everyone should:

Avoid close contact: Stay at least 6 feet (about 2 arms' length) from other people.

Wash your hands before and after working in lab spaces:

- Wash your hands often with soap and water for at least 20 seconds or use a hand sanitizer that contains at least 70% alcohol. Cover all surfaces of your hands and rub them together until they feel dry.
- Avoid touching your eyes, nose, and mouth with unwashed hands

Clean and disinfect frequently before and after working with high-activity items:

- Keyboard, mouse, and the table spaces, microscope eyepieces
- Disinfecting keyboards can be challenging. CHANL is working on approaches, including keyboard covers.
- CDC Guide for Cleaning and Disinfecting: https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/Reopening_America_Guidance.pdf

Wear face masks throughout Chapman Hall

- Lab spaces
- Cleanroom
- Stairwells
- Hallways
- The cloth face cover is not a substitute for social distancing.

Additional Guidance

Gloves:

- Wash hands or use sanitizer thoroughly before and after entering the lab
- Always wear gloves in the cleanroom
- Traditional CHANL labs: put on gloves before handling samples and sensitive equipment
- Remove gloves for work on computer keyboards or put on a new pair of clean gloves
- Always discard in waste bin before leaving the lab
- Do not wear gloves between buildings and in hallways
- Samples that require special handling should be kept in a clean container when in transit

Cleanroom Specific:

- Only one person per bay at a time and no more than 3 individuals total
    - Bay 1: DRIE/Acid Hood
    - Bay 2: Deposition instruments (included profiler)
    - Bay 3: Lithography area
    - Bay 4: Gowning
- Place gowns in plastic bags provided before hanging on rack. If a bag is not available, place in laundry bin
- Place gowns in laundry bin if you do not anticipate returning before the following Wednesday
- Guidance about handling PPE: https://www.cdc.gov/niosh/npptl/pdfs/PPE-Sequence-508.pdf

Trainings:

- No new trainings
- If you are an untrained user in need of CHANL facilities:
    - Have a trained, senior lab member perform the work for you
    - Submit a request to CHANL staff for a service request in iLab

Reservations:

- Reservations must be separated by 30 minutes
- Leave the lab as soon as you have finished your work and stopped your Kiosk session
- Reservations must be made at least 1 hour in advance – no walk-up sessions
- Some instruments are not available for reserving and operating by users. See the table below to see which instruments this applies to:

Staff contact info:

Amar

- 864-356-5430
- kumbhar@emauil.unc.edu

Bob

- 919-448-5772
- bob.geil@unc.edu

Carrie

- 650-248-0758
- cdonley@email.unc.edu
- https://unc.zoom.us/j/92668508170

Jun

- 480-295-1006
- junyan@email.unc.edu

Room - Instrument	Access type	Staff
B26: TEM	Sample submission, except for those with permission	Amar
B30:		

FIB	Reservation	Amar
ESEM	Off-line	
AFM-IR	Sample submission	Carrie
030A:		
SEM	Reservation	Amar
CPD	By request	Carrie or Amar
030C: XPS	Sample submission	Carrie
Cleanroom:		
Acid Hood Bay	Reservation	Bob or Jun
Deposition Bay	Reservation	Jun
Lithography Bay	Reservation	Bob
225: AFM	Reservation	Carrie or Amar
312:		
XRD	Reservation	Carrie
MSP	By request	Carrie
FTIR	By request	Carrie
313:		
ALD	Reservation	Bob
All other instruments	By request	Bob

Options for utilizing CHANL resources:
Reservation: Instrument is available to all trained users. Instrument time reserved in iLab, as usual.
Sample submission: User submits a service request where CHANL staff performs the work.
By request: User must contact CHANL staff to schedule time on instrument. CHANL will block out other instruments in the same space.
Off-line: Instrument is not available to anyone

Glass Shop

- Glass shop personnel will be in the Kenan Labs site twice a month.
- The Glass Shop will be open the first and third Tuesday of the month. Hours of operation will be 8:00am-3:00pm.

- Design Support or Consultation:
  - The Glass Shop will be accepting only new fabrication requests.
  - Until further notice, only Glass shop Staff are permitted in the Glass shop.

- You can email, text, or call with questions during standard working hours. If a more in-depth discussion is required, we will schedule an appointment using Zoom.
- A new Infoporte work request should be initiated for each new request.

- Repairs:
  - Only priority (immediate need) repairs will be accepted. Priority items are those that are critical to the operation of the lab. General repairs will be accepted at a later date.
  - If the repair is a priority (immediate need) please email the glass shop below to inform of drop-off in box outside of Glass shop.
  - A new Infoporte work request should be initiated for each repair.

CONTACT INFORMATION

Mark Wicker, Director mmwicker@email.unc.edu 336-314-9041 (cell)

Machine Shop

- The machine shop door will remain closed with a phone number to contact Machine Shop personnel.
- Call 919-962-1183 to setup a time or drop by and call the number on the door.
- Meetings will be conducted using COVID-related safety protocol.
- Bring your own pen.

VWR Stockroom

- VWR will reopen the stock room when the following steps have been completed
  - UNC Procurement or Chemistry Department Head communicates request to re-open the stockroom via formal email communication.
  - The chemistry building has been reopened to researchers.
  - VWR receives internal approval for the supervisor to return to work.
- Revised Stockroom Workflow
  - Hours – resume normal hours
  - Format – VWR will take orders from the window, no walk ins will be allowed except for the self-service chemical storage area.
  - PPE – will follow UNC guidelines. For example, if masks are required by UNC personnel, VWR will require the same.
- Return to normal Workflow
  - VWR will return to the normal walk in model workflow based on discussions with the Chemistry Department and/or UNC Procurement

Administrative offices

All administrative offices will have limited staff on-site and will remain fully operational off-site. Staff will be available by email and phone. Contact information can be found here: https://chem.unc.edu/admin-staff/

Mailroom

- Once mail distribution begins, the mailroom will be open from 9am-5pm daily except on Tuesday and/or Thursday from 2pm-4pm to distribute mail. A sign will be posted on the door during this time.
- Only one person is permitted in the mailroom at a time.

Purchasing Guidelines

To minimize delivery personnel travelling through the buildings and maintain healthy business operations, please consider placing orders through ePro (e.g. Fisher Scientific, Airgas) twice weekly, on Tuesday and Thursday.

CHEM Department Administrative Office (Kenan B225)

The office will remain closed with all staff continuing to work remotely. All staff are available by email and phone.

CHEM Human Resources Office (Kenan B232)

The office will remain closed with all staff continuing to work remotely. All staff are available by email and phone.

CHEM Accounting and Research Administration (Kenan C245 & Caudill 317)

The office will remain closed with all staff continuing to work remotely. All staff are available by email.

CHEM Student Services office (Kenan C140)

The office will remain closed with staff continuing to work remotely. Donnyell Batts and Jill Fallin will be available by email and phone. General student issues should be directed to chemus@unc.edu.

Director of Undergraduate Studies Professor Jillian Dempsey can be reached at dempseyj@email.unc.edu.

Director of Graduate Studies Professor David Nicewicz can be reached at nicewicz@unc.edu.

CHEM Communications (Kenan C247)

The office will remain closed with staff continuing to work remotely. For all news items, social media requests, or PR inquiries, Alice Zhao can be reached at chemcommunication@unc.edu.

CHEM Facilities & Building (Kenan A008 and B024)

For keys and building access email Fred Young fyoung@unc.edu

Issuing keys will not be on demand, and instead will be handled by leaving keys in departmental mailboxes.

For facilities issues, email Randy Simmons rlsimmons@email.unc.edu

Acknowledgments

The creation of this document is attributed to multiple discussions between the Chair's Office, the department Safety Committee, Executive Committee, and the Physical Science Core Laboratories (CRTICL and CHANL). Policies and guidance developed and released by the Chemistry Department at the University of Minnesota were an additional, invaluable reference in the creation of this document.