

Geochemistry and MacMillan Building Guidelines & Policies COVID-19, Phase 1

In addition to the policies outlined below, all personnel permitted to enter the Geochemistry and MacMillan spaces must follow all guidelines recommended by the state of [Rhode Island](#) and [Brown University](#). Research groups should consult [OVPR's page](#) regarding key documents needed to resume research, including [Resuming Research Guidelines](#). This also includes the [research ramp-up checklist](#) developed by EHS. EHS has also put together a helpful [FAQ Response](#).

Everyone must follow social distancing guidelines and take them seriously. Corrective actions will be taken if personnel returning to campus do not comply with the University's *Return-to-Campus Guidelines*, up to, and including termination. **Report behaviors inconsistent or in violation with these guidelines to a supervisor, director of graduate studies, EHS, or other University official.** **Anonymous reporting** may be done utilizing Brown's *Anonymous Reporting Hotline* (<https://compliance.brown.edu/reporting-concerns>).

Personnel should monitor their health (at least) daily before arriving. The state of Rhode Island offers a set of self-check questions: <https://covidselfcheck.ri.gov/welcome>. If you feel ill, you should not report to work. If you become ill and experience symptoms associated with COVID-19 contact your supervisor and your medical provider. *All personnel should keep a daily journal of interactions* (people, places visited) to facilitate effective contact tracing.

Face coverings are required while in the building, with the exception of designated reservable break rooms. Personnel are expected to *keep their time on campus to a minimum*, and all work which can be carried out remotely (e.g. meetings, computation, data analysis, writing) should be continued in this way.

In case of any building issues, chemistry personnel should contact Alfred Tente (alfred_tente@brown.edu) and DEEPS personnel should contact Dave Murray (david_murray@brown.edu). Environmental Health & Safety (EHS) can be reached for non-emergencies (3-3353), and emergencies (3-4111).

As a general reminder, everyone should:

- **Wear standard PPE** in lab spaces. This includes **lab coats, goggles, and gloves**. Gloves should be removed to prevent chemical contamination when touching door handles, instruments, computer accessories, and in shared spaces when not handling chemicals (hallways, shared facilities). Lab coats should not be worn in break rooms or bathrooms.
- **Use disinfectant wipes or sprays** to clean high touch surfaces between use.
- **Wash their hands** or apply hand sanitizer regularly.
- **Observe entrance/exit procedures** and maintain proper distance when in corridors or entering rooms.

Note: Only researchers and staff that have been approved and complete their required training will be allowed to work in Geochemistry or MacMillan during Phase 1. Faculty who are working remotely that need to pick up materials from their office must follow the university COVID-19 Workplace Safety Policies and our building policies.

Building Access:

1. Buildings will operate under **card-access only**, with **specific entrance and exit points** to help reduce possible transmission of COVID-19. Building diagrams with entrance and exit points provided as [GC-MM access](#).
 - a. **Entrances:**
 - i. **MacMillan:** Thayer Street & Courtyard (ADA entrances)
 - ii. **Geochemistry:** George Street
 - b. **Exits:**
 - i. **MacMillan:** North (Manning Walkway, facing Science library)

ii. **Geochemistry:** Brook Street

Note: The MacMillan entrances (Thayer Street & Courtyard) can also serve as entrances and exits for any personnel with accessibility needs. There is also an accessible exit next to the MacMillan exit.

- c. **In the case of an emergency evacuation, all hallways, stairwells, and access points are exits.** All personnel should exit to the established evacuation points and socially distance.
2. A list of authorized personnel, who **must and want** to be present in the labs only to perform essential experiments or duties, shall be provided by each PI and facility director. Please see additional guidance on lab scheduling in the **Lab Safety and Scheduling** section.
 3. All personnel entering the building(s) should confirm **daily** that they are not feeling ill and experiencing symptoms associated with COVID-19. The state of Rhode Island offers a set of self-check questions: <https://covidselfcheck.ri.gov/welcome>. **If you feel ill, you should not report to work.** If you become ill and experience symptoms associated with COVID-19 contact your supervisor and your medical provider.
 - a. All personnel should keep a daily journal of interactions (people, places visited) to facilitate effective contact tracing.
 - i. The state of RI has also released the [CRUSH COVID app](#) to help access various resources and help with contact tracing.

Building Flow and Usage:

4. **Elevator usage is restricted to a single occupant, and required use only.** This could include the transport of chemicals, supplies, heavy materials, and any personnel with accessibility needs.
5. **All bathrooms will be single occupancy.** If the desired bathroom is occupied, the user can wait at designated floor markings separated by 6 feet until the bathroom is free.
6. **All stairwells are uni-directional**
 - a. **MacMillan** (Thayer; Ground → 1st) – Up
 - b. **MacMillan** (Southwest, George/Thayer; 1st → 2nd) – Up
 - c. **MacMillan** (North, Science Library; 3rd → 1st) – Down
 - d. **Geochemistry/MacMillan** (George Street)
 - i. Ground → 0th – Down
 - ii. Ground → 4th – Up
 - e. **Geochemistry**, internal (2nd → 4th) – Up
 - f. **Geochemistry** (Northeast, Brook Street)
 - i. 0th → Ground – Up
 - ii. 4th → Ground – Down

Note: Entrance from the loading dock and the external staircase (Ground → 1st; Brook Street) will be limited to delivery personnel only.

7. **All hallways will be two-way, with personnel keeping to the right (similar to U.S. road traffic).** Passing in the hallway is limited to opposing traffic only. Social distancing should be practiced at all times, which could include moving briefly into an alcove when opposing traffic needs to pass. In instances where a strict 6-foot separation cannot be maintained, one person should turn and face the right wall while the other passes.

PPE, Disinfectant, and Cleaning:

8. All personnel approved to work in Geochemistry and MacMillan buildings will be provided with 3 reusable and washable face coverings by the University. These will initially be distributed to corresponding labs by building staff.

9. All labs and common areas will be supplied with disinfectant and cleaning supplies. Disinfectant, cleaning supplies, and PPE will be available through the strategic sourcing department and EHS. **Please contact Eric Friedfeld (eric.friedfeld@brown.edu) to request additional materials.**
- Each lab space will be provided with (at least) one spray bottle and paper towels. Refills will be coordinated with EHS and distributed through the stockroom.
10. Custodial staff will be in Geochemistry and MacMillan during two shifts, Monday through Friday: 7 am – 3 pm, and 3 pm – 11 pm. During these times, staff will make rounds of the building to restock hand soap dispensers and clean high touch points in general areas (bathrooms, door handles, common spaces).
- If soap or paper towels need to be restocked, you can call the 24/7 service response center at 863-7800.
11. **Users will be expected to clean high-use shared spaces and all labs.** These need to be cleaned before and after every new user.
12. **Gloves used in lab spaces need to be removed before leaving lab spaces**
- Wearing gloves used for lab work could introduce chemical contamination in common spaces
 - Gloves are no substitute for good hygiene, and can still transfer virus from surfaces.
13. **Personnel should wash their hands frequently**, especially after blowing one's nose, coughing, or sneezing, and before eating or touching one's face.

Shared Facilities:

14. **Only trained and approved users will be able to use these facilities.**
15. Each shared facility (e.g. Stockroom, machine shop, core-facilities) has developed its separate plan of operation and modified configuration to allow for social distancing and occupancy limits.
16. Scheduled use of facilities will be required to allow for equitable access and to ensure adherence to occupancy limits. *Please refer to the shared facility guidelines for specific details on scheduling.*
- Note: Liquid nitrogen will now be housed in GC-213A** (front entrance of the Machine Shop). Please reserve a time on the [calendar](#) and refer to the Stockroom guidelines for more details.
17. Facility staff in-person hours and training will be limited during these times. Please consult their working plans for specific hours.

Facility (<i>See these for scheduling links!</i>)	Essential Personnel
Stockroom	Allen Sylvia
Machine Shop	Tom Kiefer, Randy Goulet, and Ken Talbot
Electronics Shop	Alfred Tente
NMR	Russel Hopson
MS	Tun-Li Shen
NanoTools	Hector Garces
Env Chem	David Murray and Joseph Orchardo

Break rooms:

18. **Meeting or congregating is strictly disallowed**, and spaces will strictly adhere to occupancy limits and social distancing requirements. Time spent within Geochemistry/MacMillan should be kept to a minimum.

19. Reservation of select conference rooms and classrooms in 20 min blocks for eating/drinking will be possible by any personnel.

No person shall reserve more than a 20 min block during the hours of 11 am – 2 pm and 5 – 8 pm.

Each reservation spot is for one person (maximum). Only GC-349 and GC-351 are approved for two people (ex. one reservation for GC-349 and one for GC-349A).

GC-029	GC-150	MM-106	MM-212
GC-246	GC-449		
GC-349A	GC-349	GC-351A	GC-351

Note: Per University policies, use of shared refrigerators, coffee machines, and microwave ovens will be prohibited at this time. These will be taped and signs will be added (do not use).

20. All spaces must be thoroughly cleaned by the reservee before and after use.

21. The 4th Floor Terrace will not be open for eating at this time, and maximum occupancy is 1 person. Users are asked to be respectful of others.

22. [Following guidance from the CDC](#), personnel are strongly encouraged to disinfect handles and faucets before their use. Remember to run water prior to filling water bottles with disinfected faucets to ensure that you're not drinking water contaminated with disinfectant. Drinking fountains will not be used at this time.

Lab Safety & Scheduling:

23. Environmental Health & Safety (EHS) can be reached for non-emergencies (3-3353), and emergencies (3-4111).

24. As always, all personnel should follow appropriate safety practices when working with hazardous chemicals.

a. **Wear standard PPE!** This includes lab coats, goggles, and gloves. Gloves should be removed to prevent chemical contamination when touching door handles, instruments, computer accessories, and in shared spaces when not handling chemicals (hallways, shared facilities). Lab coats should not be worn in break rooms or bathrooms.

i. Personnel working in gloveboxes need to wear lab coats, goggles, and gloves. They should also disinfect surfaces (e.g. windows, antechamber handles, etc...) between users.

b. Standard operating procedures should be updated, and additional potential safety hazards arising from current operating conditions (e.g. low population densities, unattended processes) should be identified.

i. Lab start-up and shut-down reminders should be posted in lab spaces, and check-off sheets or log books are strongly encouraged (paper or electronic)

c. The use of **reaction or process safety cards** to help alert users of particular hazards are **highly encouraged**. Laminated copies can be made available in the Chemistry Stockroom, and the [editable word document](#) is available. **Note:** Open with Word for proper formatting.

d. Personnel that are performing procedures with pyrophoric chemicals may consider the use of a face-shield or flame-resistant face-covering, in addition to a flame-resistant safety coat.

25. Hazardous waste will continue to be managed by Triumvirate, but collections will be **scheduled by request**. Pick-ups can be requested [here](#).

26. **PIs** and research groups will be **required to submit** requests for reopening labs, which will need approval from the department chair, a building sub-group, and EHS/OVPR. Please refer to the [OVPR webpage](#) for more information on these requests: Also refer to the EHS - [Research Ramp-up Checklist](#)

a. **PI Research Reopening Plan - Attaching both parts to a [GoogleForm](#):**

Part 1 (1-2 page narrative description of the research work and justification for resuming work)

- i. Description of research work to be carried out
- ii. Justification for reopening research space
- iii. List of personnel working in space
 1. Maximum occupancy will be limited by square footage (1 researcher / ~300 ft²), but the ability to effectively socially distance is the ultimate determining factor. Please consult this [sheet](#) for square footage of research spaces in GC.
- iv. Lab safety plan (including measures on social distancing)
 1. Staggered shifts, researcher locations & lab configuration(s), wearing masks, no interactions < 6 ft, cleaning of high touch areas
 - a. Consider organizing scheduled groups to mitigate team exposure to help with continuity if someone tests positive for COVID-19.
 2. Contact tracing plan
 - a. Journal, [possible template](#)
 - b. CRUSH COVID (<https://health.ri.gov/covid/crush/>)
 3. Additional information related to safety for research space

Part 2

- v. Completed [Lab Density Google Sheet](#)

Note: PIs need to submit both parts through this [Google Form](#)

27. PIs and research groups will need to maintain scheduling for specific lab spaces (e.g. Google Calendar).
 - a. Calendars need to be accessible to all members of the research group, as well as department and managers (e.g. *Chemistry*: Lai-Sheng Wang, Sheila Quigley, Al Tente, *DEEPS*: Greg Hirth/Jim Russell, Dina Egge, Dave Murray, Joe Boesenberg).
 - b. **Individual in-person experimental working schedules:**
 - i. Should prioritize the safety and well-being of researchers
 - ii. Should fall between 6 am – 9 pm, Monday – Sunday
 - iii. Should be staggered, and include time considerations required for cleaning before and after use
 - iv. Reduce scenarios which would lead to 'working alone', while keeping the number of people working in an area to a minimum
28. Whenever possible, working alone should be discouraged. When such situations are unavoidable, additional approval is required for proposed scheduling and researchers should:
 - a. Establish clear check-in and check-out procedures with a designated point of contact. Examples may include the use of:
 - i. group text messaging (e.g. Slack, GroupMe, etc...)
 - ii. specific apps (e.g. Guardian, FallSafety, etc...)
 - b. Coordinate hours with adjacent labs and establish regular check-ins.
 - c. Avoid hazardous procedures or activities. Laboratory Supervisors will need to review the above authorizations, protocols, and procedures with their lab members and document which protocols cannot be performed alone.

Research Ramp-up Info Session (Grad Students) – FAQ

This FAQ is not exhaustive, but I hope that these will be helpful. Many of these concerns should be addressed in the [building guidelines for Geochemistry / MacMillan](#) (draft pending approval). I've also included some brief comments/questions/concerns, which hopefully allows for greater transparency and confirm that were addressing common concerns.

Everyone should (1) read through the University and building guidelines and (2) register for the University Town Hall (**Friday, May 29th, 12 – 1 pm**: <https://brown.zoom.us/meeting/register/tJAvdeqqqTgvG9S6god-VdJ8swKD9Z5Cmwyl>).

Generally speaking, many of the expressed concerns come back to transmission. According to the [CDC and current data](#), the major source of transmission for the virus is through respiratory droplets. This is why there are strict guidelines regarding social distancing, use of face coverings, and good hygiene practices to minimize transmission. Avoid touching your face, and make sure that your hands are properly cleaned before touching your face.

General Building/Facility Concerns

- **Q:** Possible to make breakrooms assigned to a specific floor or group to minimize interactions?
 - **A:** This is challenging as GC-349 is the only breakroom with a sink. All personnel will be able to reserve time at the location of their choice, and as with all shared spaces, the spaces should be cleaned before and after use.
- **Q:** Chair coverings or concerns about the type of furniture?
 - **A:** In the breakrooms we could choose to only use chairs with hard surfaces, so these are easily cleaned before and after use.
- **Q:** What doors will be propped open?
 - **A:** Few, if any. The NMR and MS Facilities will likely have their doors propped, but individual labs or floor entrances/exits will not. Propping doors is a security issue, and also presents issues with the air-flow balance of the building.
- **Q:** Hallways – One-way vs Two-way?
 - **A:** Two-way. Density will be low, and passing should be brief and minimized where possible. Adopting one-way only hallways with one-way stairwells would force personnel to frequently traverse much of the building (preferable to minimize this).
- **Q:** Drinking water in the building... where to refill, drink, and storage?
 - **A:** [Following guidance from the CDC](#), personnel are strongly encouraged to disinfect handles and faucets before their use. Remember to run water prior to filling water bottles with disinfected faucets to ensure that you're not drinking water contaminated with disinfectant. Drinking fountains will not be used at this time.
 - Food and drink are not allowed in labs (even for storage), and per University policies, use of shared refrigerators, coffee machines, and microwave ovens will be prohibited at this time.
 - Water can be drank outside of your lab (without needing to reserve a breakroom), but remember good hygiene and proper social distancing.

PPE & Cleaning

- **Q:** What PPE will be provided?
 - **A:** The university will provide 3 reusable face coverings for each person returning to work, along with cleaning/disinfectant materials. At this time, this looks like a spray bottle with disinfectant, paper towels, and hand sanitizer. Wipes can also be requested, but sources are limited at this time. Additional requests for materials are handled through procurement and EHS, and distributed through the

stockroom. I anticipate additional details (and links) will be shared after the town hall, and you can always reach out to the stockroom or EHS.

Note: PPE that you normally use for your experiments (e.g. Nitrile gloves) will be available in the stockroom and should be purchased like normal

- **Q:** Cleaning... protocols, frequency, supplies?
 - **A:** Facilities management (FM) will be in our building in two shifts (7 am – 3 pm, 3 pm – 11 pm), and they will clean high-touch common areas (bathrooms, door handles) and replace soap and paper towels.
 - **Lab users are responsible for cleaning lab spaces**
 - Shared spaces should be cleaned before and after use. Consider high-touch surfaces
 - Gloves should be removed to prevent chemical contamination when touching door handles, instruments, computer accessories, and in shared spaces when not handling chemicals (hallways, shared facilities).
 - Lab coats should not be worn in break rooms or bathrooms!
- Note:** All of these measures are no replacement for good hygiene and precautions. Avoid touching your face, and clean your hands often.
- **Q:** Labcoat laundering?
 - **A:** There are services that we could enroll in, and Eric Friedfeld is currently getting price estimates so individual groups can decide if they would like to do this.

Lab Safety

- **Q:** Working alone policies?
 - **A:** Each lab that returns to work has to submit a plan, which includes details regarding working alone. These had to be approved by the chair, the building committee, OVPR/EHS, and the provost. If your PI hasn't shared their plans, please reach out to them and have them share these materials.
- **Q:** Working hours / shifts & other general policies?
 - **A:** Same as above. Each research group (and likely each researcher) has very different experimental set-ups and timeframes associated with their experiments. Groups should consider schedules which will help minimize interactions, and single-day shifts have been popular from different group discussions. Communication within your group about scheduling and operations are essential, and everyone is required to have some sort of scheduling system in place to ensure occupancy limits.

COVID-Specific Questions

- **Q:** What happens when someone gets sick?
 - **A: Personnel should monitor their health (at least) daily before arriving.** The state of Rhode Island offers a set of self-check questions: <https://covidselfcheck.ri.gov/welcome>.
 - If you feel ill, you should not report to work. If you become ill and experience symptoms associated with COVID-19 contact your supervisor and your medical provider.
 - The supervisor will notify EHS, who will then work together to handle many of the following steps will depend on many case-specific details (where, when, how long...).
 - Note:** There were positive cases on campus during the ramp-down (not Chemistry), and EHS has specific procedures in place (room cleaning, steps for people that may have been exposed...).
- **Q:** Reporting regarding compliance?

- **A:** When possible, you are encouraged to alert your supervisor (PI), chair, director of graduate studies, or EHS regarding compliance concerns. In cases where **anonymous reporting** is needed, this may be done utilizing Brown's *Anonymous Reporting Hotline* (<https://compliance.brown.edu/reporting-concerns>).
- **Q:** Contact tracing – submission, checking, privacy?
 - *Personnel should keep a daily journal of interactions* (people, places visited) to facilitate effective contact tracing.
 - The state of RI has also released the [CRUSH COVID app](#) to help access various resources and help with contact tracing.
 - These become very important when a positive case is reported. There is no requirement for submission of these journals.

Specific Facility Notes

- NMR Sign-up – Zeus & Artemis
 - **A:** Zeus will be removed from the scheduler to ensure that the maximum occupancy of the GC-410 (main NMR facility; 2 people maximum) is always maintained. If anyone wants to use Zeus, they should schedule time for Artemis.
- Stockroom – Details of pick-up form are needed
 - **A:** These have been updated. Please check out the stockroom guidelines and the new order form.



As you prepare to return to campus, please review these Frequently Asked Questions from EHS

What is the process for returning to do research on campus?

1. Resumption of Research Stage 1 plan is approved for your laboratory by OVPR after a review process.
2. Anyone returning to work on campus as part of their approved Resumption of Research plan must complete training in Workday, “Social Distancing and Return to Campus Guidelines for Employees,” and sign the acknowledgement form before they return to campus. This will be assigned by Human Resources once the individual laboratory plans are approved.
3. A virtual meeting should be held with the Laboratory Supervisor and all lab members that are returning to campus to ensure the approved resumption of Research Stage 1 plan is understood and to answer other questions.
4. The laboratory will need to pick up face coverings/disinfection supplies from the stockroom.
 - Call the stockroom to determine time for pick-up or if supplies can be delivered to the laboratory directly. Stockroom contacts are at the end of this document.
 - Three cloth face coverings will be distributed per person.

Face Coverings

- Why do I need to wear a face covering?
 - Follow [COVID-19 Face Covering Guidance](#).
 - The major route of transmission is by respiratory droplets. Face coverings can help reduce the spread of the coronavirus by people who have COVID-19 but are asymptomatic. Wearing face coverings can overall decrease viral transmission in most situations without needing additional restrictions or distancing.
- When do I need to wear a face covering?
 - Face coverings must be worn in any entry, exit and common area.
 - While in the same area as other people.
 - While socially distancing in a shuttle.
- When is a face covering **not** needed?
 - Driving solo to work.
 - While outdoors maintaining social distancing. Have a face covering with you.
 - When working alone in a laboratory, private office or similar area as long as there is no contact with others.
- What if I can't wear a face covering due to health conditions?
 - Contact Human Resources if your work requires you to be on campus.
- Do visitors have to wear a face covering when at Brown?
 - Yes. All visitors must wear a face covering according to CDC, RIDOH and University regulations and policies.

Personal Protective Equipment (PPE)

- What should I do if I think I need to wear an N95 respirator?
 - An N95 respirator is generally not recommended by the CDC or RIDOH and should not be needed for work in research buildings except where previously approved. If you believe you need a higher level of protection such as an N95 respirator, as is appropriate for health care, please discuss your concerns with your supervisor and have them contact EHS at safety@brown.edu to conduct a risk assessment.
- What if my job normally requires that I wear an N95 respirator?
 - N95 respirators should still be worn for job tasks that typically require them. Anyone required to wear an N95 respirator must be entered into the EHS Respiratory Protection Program. Contact EHS at safety@brown.edu.
- I would like to inquire about using N95 masks in my lab when people cannot meet social distancing measures of 6 ft at all times. What should I do?
 - Face coverings are required and should be sufficient for most work including work closer than 6 feet for less than 10 minutes.
 - Work requiring contact closer than 6 feet for longer than 10 minutes should not be part of Phase 1 research ramp up.
 - Any work that requires contact closer than 6 feet should be identified in the plans submitted to OVPR for review and approval.
 - In the rare cases where N95s are approved, certain OSHA requirements must be met. EHS will help with these.
- Should I wear gloves to protect myself?
 - Wearing gloves in public areas isn't a substitute for good hygiene and can provide a false sense of safety. Skin is impervious to the virus and bare or gloved hands can equally spread the virus if contaminated. Hand washing is the best defense against infection and gloves should only be worn when a task otherwise requires it. If you do need to wear gloves, wash your hands when gloves are removed.

Supplies - Where can I get the following?

- Face coverings
 - Face coverings will be available through the research building stockrooms.
 - The University will provide individuals approved to be on campus with three reusable face coverings or individuals may use their own, provided they meet state guidelines.
- Disposable nitrile gloves
 - If your work (e.g., lab research) normally includes use of nitrile gloves, these should be available through the stockrooms.
- Specialized Personal Protective Equipment (PPE)
 - Obtain specialized PPE (i.e. specific gloves, eye protection, etc.) as you typically would. If you have trouble buying a product, check with the stockrooms. If you have questions you can contact EHS.

- Disinfecting wipes or sprays
 - Some research labs use ethanol or bleach and should continue to do so. Disinfecting wipes and sprays will also be available in the stockrooms. Wipes are currently in short supply and high demand, so you may be provided with disinfecting sprays in lieu of wipes.
- Hand sanitizer
 - Hand sanitizers will be available at the entrances of all research buildings.
 - Additional hand sanitizer will be available in the stockrooms.
- Empty spray bottles
 - Available at the stockroom.
- Face Shields
 - Face shields do not eliminate the need for face coverings. The stockrooms may have limited supplies of face shields if they are needed.

Building Signs

- Will signs be posted in University buildings?
 - Facilities Management will post appropriate COVID-19 related signage at building entrances, elevators, restrooms and other locations as needed. Check with a building manager if a sign is missing or damaged.

Cleaning, Disinfection, and Hygiene

- Who is responsible for cleaning/disinfecting shared equipment (e.g., computers, shop tools etc.)?
 - While University cleaning and disinfecting will be increased, individuals will be responsible for cleaning and disinfecting their work areas, shared equipment and other surfaces.
- What products can be used to disinfect surfaces?
 - Most common EPA-registered household disinfectants should be effective against the virus. However, if surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.
 - [EPA approved Disinfectants for Use Against SARS-CoV-2A.](#)
- Can we make our own disinfectant?
 - People working in research laboratories may make their own disinfectant using diluted bleach or an alcohol solution. Remember that COVID-19 related enhanced disinfection procedures should not be confused with the decontamination procedures already in place for working with biological research samples.
 - For enhanced cleaning/disinfection of surfaces for COVID-19, researchers may make a spray bottle containing at least 70% alcohol for disinfecting touch points on electronics and sensitive equipment.
 - A freshly made 2% (about 1/3 cup of bleach per gallon of water, or 4 teaspoons of bleach per quart) up to a 10% bleach solution will be effective following a contact time of at least 1 minute with surfaces. Bleach solutions will begin to lose their

effectiveness after 24 hours and should be made fresh daily. See [CDC guidance](#) for more details.

- How should I clean my lab or other spaces I use?
 - Disinfect all shared spaces, high-touch surfaces and equipment before and after use.
- Where can I find the Safety Data Sheet (SDS) for the cleaning supplies I'm using?
 - <https://cems.unh.edu/brown/CEMS/Dashboard> or contact EHS.
- How do I request more soap or paper towels at a sink?
 - Contact Facilities Management at 401-863-7800 or enter a [service request](#).

Working on Campus and/or Visiting Campus

- Who can remain on campus?
 - Only personnel whose work (1) has been identified as essential onsite or essential/special or (2) is part of laboratory-based research that is approved under the [Research Facilities Reopening Principles and Procedures: Stage 1](#) may report to work in person. All other employees who can telecommute are expected to continue doing so until the University determines a return to work date. <https://covid.brown.edu/news/2020-05-18/return>
- Can I hold in-person meetings?
 - Most meetings will need to continue to be virtual, even for those who have returned to campus. In rare instances where meetings cannot be virtual, face coverings and adequate space to ensure social distancing is required.
- How do I practice social distancing?
 - Per the CDC: Stay at least 6 feet (about 2 arms' length) from other people, do not gather in groups, stay out of crowded places and avoid mass gatherings
 - <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>
- I have questions about ventilation. I'm worried about the ventilation in the bathrooms, coldrooms, etc. Should the ventilation system be adjusted? Is it adequate?
 - Per the CDC: The risk of spreading the virus that causes COVID-19 through ventilation systems has not been studied, but is likely low. Facilities Management is following CDC recommendations for air handling systems maintenance. Facilities Management is evaluating cold room ventilation and we will provide further guidance.

Research Facilities

- Where can I find specific guidance related to research ramp up?
 - Review the [Process for Resuming Research](#)
- How do I bring a vendor technician in to work on equipment?
 - All vendors, contractors, suppliers, and their employees must follow the same policies and procedures as Brown personnel. Whoever is engaging the vendor, contractor or consultant is responsible for ensuring this.

EHS Services & Waste Pickup

- How do I contact the Office of Environmental Health & Safety (EHS)?
 - EHS will be providing services on campus as needed and working remotely at other times. Please contact staff directly by email or leave a message on the EHS mainline 401-863-3353. Messages are reviewed frequently during normal business hours. If there is an emergency, call Public Safety at 401-863-4111.
- How do I request a biological waste pickup?
 - Submit a pickup request using the link on the [EHS Waste Pick-Up Request Site](#).
- How do I request a hazardous waste pickup?
 - Normal routine hazardous waste pickups will resume as research activities increase. Brown's hazardous waste contractor will adhere to the same requirements as employees for social distancing, face coverings, hand hygiene and sanitizing.
 - If the waste pickup is critical, submit a pickup request using the link on the [EHS Waste Pick-Up Request Site](#).
- How do I request a radiological waste pickup?
 - Submit a pickup request using the link on the [EHS Waste Pick-Up Request Site](#).

Training

- How do I complete regular EHS safety training?
 - All classroom training has been temporarily suspended. Most training can be completed online via [TrainCaster](#). Please contact safetytraining@brown.edu with any questions.
- When will you be offering Respiratory Protection Fit Testing?
 - EHS is working on scheduling future fit testing. We will email all users who are part of the Respiratory Protection Program and due for fit testing when we have more information.

COVID-19 Misc

- Someone who works in my building tested positive for COVID-19, what will happen next?
 - Please refer to the [COVID-19 Workplace Safety Policy](#) and [University Human Resources](#).
- What do I do if I become ill?
 - Stay home from work, inform your supervisor, and contact a medical provider if you are experiencing symptoms of COVID-19, have tested positive for COVID-19, have been exposed to COVID-19 (identified contact) or otherwise are feeling sick.
 - Please refer to the [COVID-19 Workplace Safety Policy](#).
- I've recovered from COVID-19, do I still need to socially distance?

- Yes. Everyone must maintain social distancing when interacting with people outside their households.
- Follow [CDC](#) and [Rhode Island Department of Health Guidelines](#) for determining if you are able to stop self-isolation.
- Will the University be taking the temperatures of people when they come to work?
 - Everyone must monitor their health conditions daily before arriving on campus including checking temperatures and being aware of all possible COVID-19 symptoms.
- Who will notify me if I have had a workplace exposure?
 - The RIDOH will take the steps to perform contact tracing and inform anyone who may have been exposed.
 - More information is available on the [University Human Resources website](#).
- Am I and/or my department required to keep a contact tracing log? What should be included?
 - As described in the [Brown COVID-19 Workplace Safety Policy](#), all faculty and staff must take responsibility for maintaining logs of their daily contact, to aid in the event contact tracing is necessary.
 - Include the date, time and locations of your daily contacts.
 - Consider using the [RIDOH COVID-19 Self Checker](#)
- What is the definition of "daily contacts" for the purpose of the contact tracing log that we are required to keep?
 - Daily contacts could be described as, but are not limited to, the following:
 - individuals who have had close contact (<6 feet) for a prolonged period of time (>10 minutes),
 - household members or intimate partners,
 - individuals providing care in a household, and
 - coworkers, but would not include someone you come across in passing through a corridor.
 - For the purposes of documenting contacts in Returning to Research Facilities Stage 1, it is helpful to document longer contact with others (>30 minutes), such as in a shared lab space, even if you maintain at least 6 feet of distance.

Emergency Evacuation

- What do I do during an emergency evacuation such as a fire alarm or other building evacuation?
 - Buildings may have one-way directional indications for outside doors for entry and exit as well as directional arrows in narrow hallways as part of a return to campus plan. **This directional guidance should be ignored during any type of emergency.**
 - As in normal emergency evacuations, occupants should close doors behind them and use the nearest exit. Once safely out of the building, they should report to the evacuation location for the building while maintaining social distancing and wearing face coverings.

Transportation

- I will need transportation on campus. Can I take the shuttle?
 - As described in the [Brown COVID-19 Workplace Safety Policy](#), shuttle transportation capacity will be reduced to abide by social distancing requirements. Faculty and staff should to the fullest extent possible make use of virtual meeting platforms to reduce the need to take the shuttle between campus locations during their work day.

Helpful Links:

- Brown University COVID-19 updates & information: covid.brown.edu
- [Brown University COVID-19 Workplace Safety Policy](#)
- [Brown University Research Facilities Reopening Principles and Procedures](#)
- CDC FAQs: <https://www.cdc.gov/coronavirus/2019-ncov/faq.html>
- Rhode Island Department of Health: <http://www.riema.ri.gov/>

Stockroom Contact Information

Building	Room #	Primary Contact Email Address	Phone	Manager Email address	Phone
Biomed	139	Gerard_Levesque@brown.edu	(401) 863-2745	adam_mcgovern@brown.edu	(401) 863-3393
70 Ship St.	243	James_Andrews_1@brown.edu	(401) 230-3970	adam_mcgovern@brown.edu	(401) 863-3393
Geochem	216	allen_sylvia@brown.edu	(401) 863-3102	eric_friedfeld@brown.edu	(401) 863-3179
Prince Lab	219	John_Lee@brown.edu	(401) 863-2359	Paul_Waltz@brown.edu	(401) 863-1461

Contact tracing example

Date	Time	Location	Other people in space	Any interactions < 6 ft?
05/13/2020	6:30 - 6:45 am	Home to GC	Few people, all at distance	No
05/13/2020	6:45 - 6:50 am	Entered GC (George St) to GC-411	Sharing GC-411 with XXXX YYYY	No
05/13/2020	6:50 - 7:00 am	GC-411 to GC-213A (Liquid Nitrogen)	Person YYY in hallway	No
05/13/2020	7:15 - 7:45 am	NMR (GC-410)	None	No
05/13/2020	7:45 - 10:30 am	GC-411	XXXX YYYY	No
05/13/2020	10:35 am	4th floor bathroom	None	No
05/13/2020	10:35 - 11:20 am	GC-411	XXXX YYYY	No
05/13/2020	11:20 - 11:50 am	NMR (GC-410)	YYYY ZZZZ	No
05/13/2020	11:50 - 12:10 pm	GC-449 (lunch)	AAAA BBBB	No
05/13/2020	12:10 - 1:30 pm	GC-411	XXXX YYYY	No
05/13/2020	1:30 - 1:35 pm	Leaving GC (Brook St) to home	None in building, few walking home	No

Environmental Chemistry Facility (MM-221)
Guidelines & Policies
COVID-19, Phase 1

All use of the facility must have prior approval. No person is allowed access at any time without an appointment. Users in Phase 1 must have an approved research plan following Brown University's COVID-19 Workplace Safety Policy. You need to be named specifically in the approved research plan.

Priorities for both sample analyses and access to instrumentation will be considered and granted at my discretion.

DO NOT TOUCH any of the computers. This is for my safety as well as yours. I will set up all the instrument software and download all the files and send them to you.

Only one person at a time will be allowed to work in any lab.

For analyses on the ICP:

You must schedule an appointment with me to bring your samples to the lab. At that time I need an estimate of the number of samples.

At least 30 minutes prior to that appointment you must email me a sample list and your calibration standards information (name, date and elements on the label. If these are new standards, send the concentration data for each std.).(joseph_orchardo@brown.edu).

I will set up the ICP software and run sequence for that list and leave a hard copy in the fume hood.

When you bring your samples to the lab at the appointed time, go directly to the fume hood and put your samples and calibration standards into the autosampler racks provided. I will have placed your calibration standards in the fume hood. Leave the racks with samples in the fume hood.

PLEASE NOTE: Your samples must be ready to go directly into the autosampler tubes and rack.

DO not use the facility fume hood to dilute or manipulate your samples other than to transfer them to the autosampler racks.

We will supply the autosampler tubes (the tubes many of you have used in the past). **Many of you use the falcon tubes with the colored caps. These are perfect, and I would prefer you all use these. They are available from the stockrooms.**

You will then leave the lab and I will put your samples/racks on the ICP and start the run.

We will arrange a time for you to remove your samples, based on run time and convenience.

I will download and send your data files and calibration curves as needed.

Calibration standards for the ICP.

If you need to make calibration standards, you will need to make an appointment with me. Preferably this will be Thursday afternoon or Fridays.

Send me an email to inform me which primary standards you need. I will place them on the counter, along with clean bottles (I will have tape on the bottles. There will be a marker for YOU to fill out the labels following ESH guidelines).

Leave the primary standards and your newly made calibration standards in the designated area next to the balance. Then leave the lab. I will clean the bottles and area when I return.

Graphite Furnace Atomic Absorption:

Schedule and appointment.

Send me a sample list at least 30 minutes before the scheduled time.

Arrive at the scheduled time and I will instruct you to enter the lab and install your samples onto the GFAA autosampler tray. You will then leave, I will start the run, and then send you the relevant data.

I will send you an appointment time window for you to pick up your samples as appropriate.

Elemental Analyzer

Schedule time on the EA. If you have access to a microbalance, prepare samples and standards in your lab ahead of time. As needed, standards and sample containers can be supplied and arranged with me.

If you need to use the MM221 lab microbalance to weigh out samples and standard, this must be scheduled with me and I would prefer that this work be performed after hours, preferably on a Thursday afternoon or Friday. This work schedule will allow the lab will be unoccupied for the several consecutive days until I return the following Tuesday.

Once your samples/standards are ready, we will schedule a time to run them on the EA. You must send me the excel spreadsheet 30 minutes prior to your appointment.

Arrive at the lab, and I will instruct you how to proceed into the lab to load your samples into the EA autosampler.

Milestone Ultrawave Microwave Digestion Workstation

Schedule an appointment with me.

During Phase 1, this instrument can only be used by experienced users.

When an appointment time is scheduled, I will set up the system and disassemble it as needed. Users will be responsible for loading the samples once I've contacted you that it is ready and unload the samples when the run is complete.

Dionex Ion Chromatography Workstation

Schedule an appointment with me.

Email me an annotated sample list. Please make the ID's simple because I need to type these in one at a time. Otherwise I will simplify them to 1,2,3,..., and you can add the ID's.

At the appointed time, bring your samples to the lab and load into the autosampler tubes. Leave the tubes in the rack. I will set up and start the run, download and email data files to you.

Any other equipment requirements or sample analyses will be performed in a similar manner.

For our safety and yours, you are responsible to have your samples ready before you get to the lab. You should spend as little time in the lab as possible.

You should not touch anything in the lab except what is needed to perform the task at hand.

YOU will not touch any computer.

Thanks very much for your cooperation.

Electronic Shop (GC-321) Guidelines & Policies COVID-19, Phase 1

In addition to the policies outlined below, all personnel permitted to use the Electronic Shop (ES), its services and facility, Geochemistry 321 (GC-321), must follow all guidelines recommended by the state of [Rhode Island](#) and [Brown University](#). Research groups should consult [OVPR's page](#) regarding key documents needed to resume research, including [Resuming Research Guidelines](#). This also includes the [research ramp-up checklist](#) developed by EHS, and the [Geochemistry/MacMillan Guidelines](#).

Face coverings are required while in the building, with the exception of designated reservable break rooms. Personnel are expected to keep their time on campus to a minimum, and all work which can be carried out remotely (e.g. meetings, computation, data analysis, writing) should be continued in this way. In case of any instrument issues, they should contact Al Tente, by email (Alfred.Tente@Brown.edu) or phone (office: 3-9385). Environmental Health & Safety (EHS) can be reached for non-emergencies (3-3353), and emergencies (3-4111).

Policies:

1. The ES will remain open to ES staff, but is not an open-use facility. There should only be **one** person in the ES at any one time (~240 ft²). There will be no meetings with Chemistry personnel in the ES at this time.
 - a. **ES hours:** TBA. Largely by appointment.
 - b. **Al Tente's on-site hours :** TBA. Largely by appointment.
2. Personnel must use disinfectant wipes or sprays to clean touched equipment surfaces between use. This includes benches, desk surfaces, keyboard(s) and other computer accessories, door knobs, drawer handles, and phones.
3. **Building-related Problems:** Please email Al Tente to report any Geo-Chem building related problems that require Facilities Management to be notified for the repair
4. **Submitting Work:** All work requested by the ES will begin by completing the Chemistry Department [Scope of Work \(SOW\) form](#). This form can be completed electronically and emailed to Al Tente. Fill out the SOW form completely and include as much detail about your project as possible.
 - a. **Instrument/Equipment Repair:** Make sure to list the model and serial number of the lab equipment or instrument needing service, along with a detailed description of the problem. A Zoom meeting will be scheduled to discuss the problem and how to proceed with repairing the equipment.
5. **Consultations/Appointments:** We will conduct meetings concerning your project via Zoom. The Zoom meeting will be scheduled for a time that is convenient for everyone.
6. Requests for items in the ES inventory can be done by sending an email to Al Tente. If the item is in the ES inventory, then a confirmation of your request will be sent to you by email. Some type of arrangement for pick-up or delivery will be decided at this time.
 - a. There will be no lending of tools or electronic equipment from the ES at this time.

Routine and Critical Maintenance:

In case of prolonged absence of the facility director, contingency plans for the ES should be followed.

Machine Shop (GC-213) Guidelines & Policies COVID-19, Phase 1

In addition to the policies outlined below, all personnel permitted to use the Machine Shop, Geochemistry 213 (GC-213), must follow all guidelines recommended by the state of [Rhode Island](#) and [Brown University](#). Research groups should consult [OVPR's page](#) regarding key documents needed to resume research, including [Resuming Research Guidelines](#). This also includes the [research ramp-up checklist](#) developed by EHS, and the [Geochemistry/MacMillan Guidelines](#).

Face coverings are required while in the building, with the exception of designated reservable break rooms. Personnel are expected to keep their time on campus to a minimum, and all work which can be carried out remotely (e.g. meetings, computation, data analysis, writing) should be continued in this way.

In case of any instrument issues, they should contact the facility director, Ken Talbot, by email (ken_talbot@brown.edu) or phone (office: 3-3542). Environmental health and safety (EHS) can be reached for **non-emergencies (3-3353)**, and **emergencies (3-4111)**.

Policies:

1. The Machine Shop will remain open to Machine Shop personnel, but is not an open-use facility. There should be no more than **three** personnel in the Machine Shop at any one time. Efforts should be made to minimize person-to-person interaction in the facility as far as practicable.
 - a. **Machine Shop hours:** Monday – Friday; 7:30 am – 4 pm.
 - i. Ken, Randy, and Tom will coordinate their schedules to ensure appropriate social distancing
2. **Entrance and Exit:** All users should enter the facility through the west door, while exit should occur through the east door.
3. **Machine Shop Layout:** All personnel will follow appropriate social distancing guidelines and maintain 6 feet separation from instruments.
 - a. **Office Space:** A maximum of **one** person will be allowed in this space at a time. Desks will be rearranged to ensure six feet of space between each desk.
4. **Liquid Nitrogen:** Liquid nitrogen will be moved to the front entrance of the Machine Shop (GC-213A). This door will remain open at all times to allow access after normal stockroom hours, and users should schedule usage with the [Liquid Nitrogen Google Calendar](#).

Note: Purchases need to be entered in the online order form!
5. Personnel must use disinfectant wipes or sprays to clean touched equipment surfaces between use. This includes benches, desk surfaces, keyboard(s) and other computer accessories, door knobs, drawer handles, and phones.
6. **Submitting Work:** Researchers should submit work via email with the proper [Scope of Work](#) (SOW) form.
7. **Consultations/Appointments:** Preferred mode for consultations will be carried out remotely via Zoom. In instances where this is impractical, an in-person consultation may be carried out if room occupancy and social distancing requirements can be maintained.
 - a. Appointments may be made through the [Machine Shop Google Calendar](#).
8. **Communication/Completion of Work:** Communication between Machine Shop personnel and researchers regarding on-going and completed work will be made via email. Finished work will be delivered to lab spaces in the early morning hours or will be placed on top of the shelf in room 213A for pick-up.

Routine and Critical Maintenance:

In case of prolonged absence of the facility director, contingency plans for the Machine Shop should be followed.

Mass Spectrometry (MS) Facility (GC-408)

Guidelines & Policies

COVID-19, Phase 1

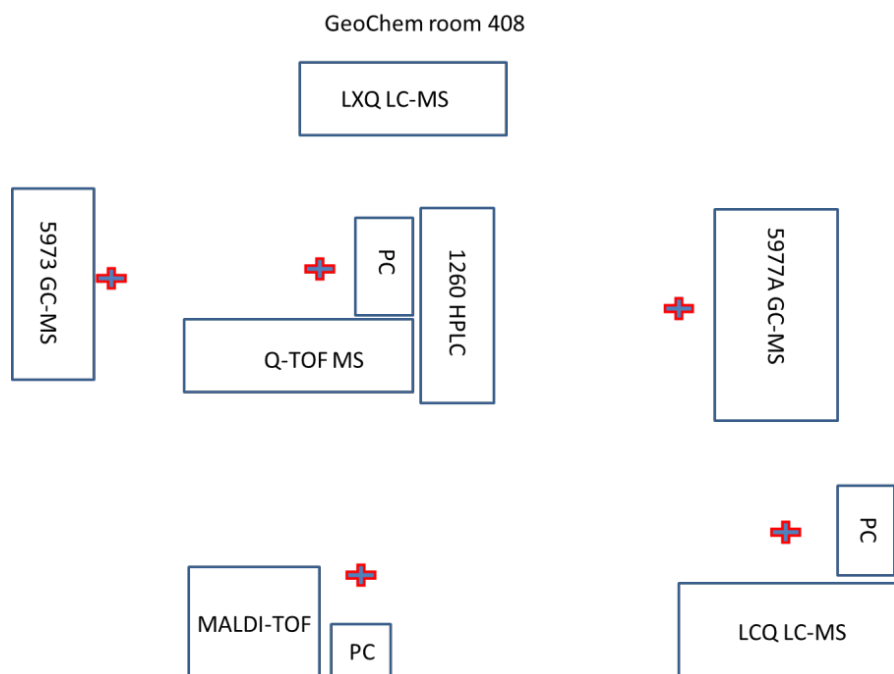
In addition to the policies outlined below, all personnel permitted to use the Mass Spectrometry (MS) Facility, Geochemistry 408 (GC-408), must follow all guidelines recommended by the state of [Rhode Island](#) and [Brown University](#). Research groups should consult [OVPR's page](#) regarding key documents needed to resume research, including [Resuming Research Guidelines](#). This also includes the [research ramp-up checklist](#) developed by EHS, and the [Geochemistry/MacMillan Guidelines](#).

Face coverings are required while in the building, with the exception of designated reservable break rooms. Personnel are expected to keep their time on campus to a minimum, and all work which can be carried out remotely (e.g. meetings, computation, data analysis, writing) should be continued in this way.

In case of any instrument issues, they should contact the facility director, Tun-Li Shen, by email (tun-li_shen@brown.edu) or phone (office: 3-2903; lab: 3-9779). Environmental health and safety (EHS) can be reached for **non-emergencies (3-3353)**, and **emergencies (3-4111)**.

Policies:

1. The MS facility shall remain to be used in an open access manner; however, there should be no more than **two** personnel in the MS facility at any one time. Efforts should be made to minimize person-to-person interaction in the facility as far as practicable.
 - a. **Lab hours:** Monday – Sunday; 6 am – 9 pm.
 - b. **Tun-Li hours:** Monday – Friday; 8 am – 4 pm. On-site hours: These will vary and be communicated.
2. **Entrance and Exit:** All users should enter and exit the facility through the main door, GC-408 (facing north). The door adjoining the Williard's lab space should only be used by the Williard lab if they are using the MS facility.
3. **MS Facility Layout:** Please refer to the diagram below for the configuration of the MS Facility. Red crosses represent people working at a work station, which ensures that any two users will be appropriately distanced (6 feet or greater).



4. **Users are expected to:**
 - a. **wear standard PPE** when handling chemicals. When touching an instrument, keyboard, or mouse, gloves used to handle chemicals should be removed to prevent contamination of these surfaces.
 - b. **use disinfectant wipes or sprays** to clean touched equipment surfaces between use. This includes benches, desk surfaces, keyboard(s) and other computer accessories, door knobs, drawer handles, and phones.
 - c. **make reservations for instrument time** to ensure room occupancy limits are maintained. These can be made using the [MS Google Calendar](#). Considerations should be made regarding experiments requiring large blocks of time.
5. Submitted samples will still follow the same standard protocols. Users will complete the requisition form, and place the form and sample in the sample tray. Results will be sent out by email.
6. Where possible, user-run samples should be grouped together for analysis and run in batches to minimize time in the facility.
7. If researchers need assistance setting up an experiment or interpreting data, Tun-Li will be available via Zoom or email to assist.
8. **New user training** for the MS facility will be conducted with an initial virtual introduction (via Zoom) and a brief in-person instruction following appropriate social-distancing.

Routine and Critical Maintenance:

A high-pressure liquid nitrogen dewar is required to be replaced every other week. Liquid chromatography mass spectrometry (LC-MS) will be unavailable during this time.

A helium gas cylinder used as a carrier gas for gas chromatography mass spectrometry instruments are required to be replaced approximately every two months.

In case of personnel illness or prolonged absence of the facility director, contingency plans for the MS facility should be followed.

Title: <i>Quick Take Guide</i> COVID-19 Safety Protocols MM107	No. NTF-IMNI-QTG-tem Revision 0.1	Page 1 of 2 Effective Date: 06/01/2020
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Safety Protocol MM107

1. Make sure that nobody is using the bay area that you are supposed to use before entering MM107 and do not enter the room if someone is still using the instrument that you are supposed to use. There might be times where a previous user might be finishing up and would need extra time to finish. If this is the case, stay outside the room and exercise social distancing at all times. We will procure to leave enough time between booking times to avoid users interaction.
2. Prior to enter the MM107 room, the user needs to wash or sanitize their hands, wear surgical or cloth facemask and wear disposable gloves. Continue to use them until the session finish or the user leaves the facility. Instruments, computers, sample preparation, etc. need to be manipulated with gloves. A cleaning station with hand sanitizer, gloves, masks, and wipes will be located next to the entrance of the facility in case the user needs new ones.
3. The number of persons in the room is restricted to **TWO** people maintaining social distancing and with one person per bay. See floor markings to identify social distancing expectations. Only authorized personnel per shift is granted permission to enter the facility and they need to sign a safety agreement regarding compliance with the new stated safety rules (available via Workday). Working, meeting, congregating, *etc.* in the NanoTools facility is strictly prohibited. Brown Guardian App will be used to monitor the well-being of the users during their state in the facility. The facility manager will be the person to contact.
4. Continue to use the google calendar reservation system to separate a slot to use the instrumentation. However, your slot will be approved by the facility manager and you will receive a confirmation notice by email granting you the reservation slot. This, in order to minimize interaction in common areas, building and lab entrances and to guarantee a staggering timing in the instrumentation room.
5. Exercise social distancing in the facility (MM107) since there might be other users/facility manager in the room.
6. Collect the data, transfer to an external platform and process it outside the facility. No processing of data inside the NanoTools facility, use your own PC. There are also free software that can be used to process the data and the user can install it on his/her computer.

7. Do not show up in the facility to retrieve data. When your experiment is done, locate enough time to transfer your data and minimize your time inside the facility. Time spent by each occupant in the NanoTools Facility shall be limited to an absolute minimum.
8. If the user has problems with the instrumentation and is not able to collect data, the user will have to phone the facility manager and troubleshoot the instrument remotely. If the problem cannot be solved, the user needs to leave the room and finish the session and the facility manager will check the problem. If the facility manager is not available on the phone, the user will describe the problem in an email and finish the session.
9. If a user needs assistance setting up experiments, the user would need to email in advance the special needs and the facility manager will provide guidance.
10. Disinfectant would be provide, so wipe down all touched surfaces (benches, equipment knobs, buttons, taps, door knobs, water fountain, service lines, *etc.*) when done with your work and discard gloves properly.
11. Use commonsense regarding social-distancing, cleanliness, hygiene, and safety.
12. All safety protocols shall be strictly enforced, with loss of facility access and privileges for offenders.

NMR Facility (GC-410, MM-315) Guidelines & Policies COVID-19, Phase 1

In addition to the policies outlined below, all personnel permitted to use the NMR Facility, Geochemistry 410 (GC-410) and MacMillan 315 (GC-315), must follow all guidelines recommended by the state of [Rhode Island](#) and [Brown University](#). Research groups should consult [OVPR's page](#) regarding key documents needed to resume research, including [Resuming Research Guidelines](#). This also includes the [research ramp-up checklist](#) developed by EHS, and the [Geochemistry/MacMillan Guidelines](#).

Face coverings are required while in the building, with the exception of designated reservable break rooms. Personnel are expected to keep their time on campus to a minimum, and all work which can be carried out remotely (e.g. meetings, computation, data analysis, writing) should be continued in this way. In case of any instrument issues, they should contact the NMR Facility director, Russ Hopson, by email (russell_hopson@brown.edu) or phone (office: 3-3069/cell 401-952-1059). Environmental Health & Safety (EHS) can be reached for non-emergencies (3-3353), and emergencies (3-4111).

Policies:

1. The NMR Facility shall remain to be used in an open access manner; however, there should be no more than **two** people in the main NMR facility (GC-410) and **one** person in MM-315 at any one time. Efforts should be made to minimize person-to-person interaction in the facility as far as practicable.
 - a. **Lab hours:** Monday – Sunday; 6 am – 9 pm.
 - b. **Russ's hours:** Monday – Friday; 8 am – 4 pm.
On-site hours: These will vary and will be communicated.

****No processing of NMR data should occur in the NMR Facilities.****

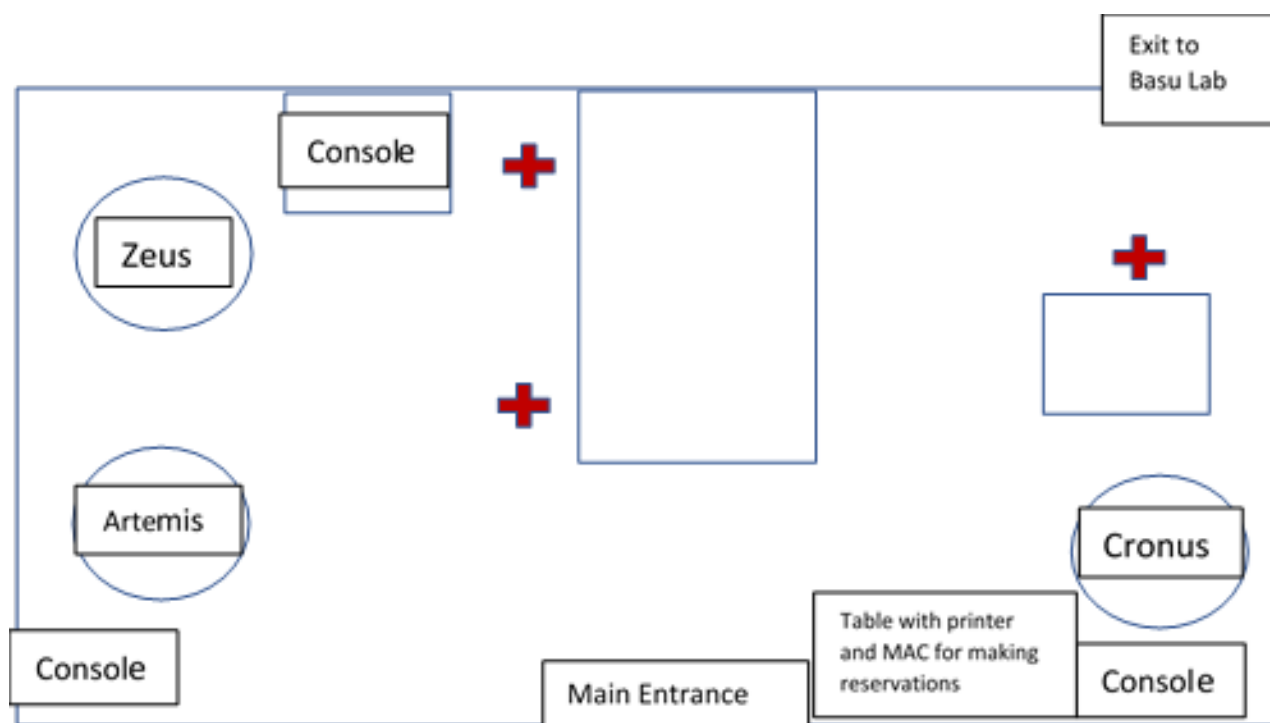
TopSpin is free (register with Bruker) & MNova is available upon request from the NMR Facility director.

2. **Entrance and Exit:** All users should enter and exit the facility through the main door, GC-410 (facing north). This door will be propped during normal operating hours to minimize the need for touching door handles and ensure an appropriate berth to enter the facility. The door adjoining the Basu lab space should only be used by the Basu lab if they are using Cronus in the main NMR facility (GC-410).
3. **Users are expected to:**
 - a. **wear standard PPE** when handling chemicals. When touching an instrument, keyboard, or mouse, gloves used to handle chemicals should be removed to prevent contamination of these surfaces.
 - b. **use disinfectant wipes or sprays** to clean touched equipment surfaces between use. This includes benches, desk surfaces, keyboard(s) and other computer accessories, door knobs, drawer handles, and phones. Hand sanitizer is mounted by the doors of both rooms of the NMR Facility (GC-410, MM-315).
 - c. **make reservations for instrument time** to ensure room occupancy limits are maintained. These can be made using [Faces](https://faces.ccr.c.uga.edu) (faces.ccr.c.uga.edu). Considerations should be made regarding experiments requiring large blocks of time.
 - i. **Standard reservations should be no longer than 30 min to ensure equitable access to the NMR facility**
 - ii. **Extended reservations should be coordinated with Russ Hopson**, and lengthy single-sample ambient temperature experiments can be performed remotely through the use of appropriate software.

Note: It is absolutely critical that users use the reservation system, and strictly adhere to their reservation time. Personnel cannot linger in the hallways, and the facility has limited occupancy.

4. Where possible, user-run samples should be grouped together for analysis and ran in batches to minimize time in the facility.

5. Due to lab occupancy limits and social-distancing requirements, Artemis and Zeus cannot be used at the same time. Artemis or Zeus may be used by reserving time for Artemis through the Faces scheduler.
6. As a reminder, Ares (MM-315) is often undersubscribed, and well-suited to carry out routine ^1H - and inverse-detection NMR experiments. Users are encouraged to use this spectrometer for cases where simple reaction completion or simple characterization is required.
7. If researchers need assistance setting up an experiment or interpreting data, Russ will be available via Zoom or email to assist.
8. **New user training** for the NMR facility will be conducted remotely via Zoom to minimize on-campus contact time and ensure appropriate social distancing.
9. **NMR Facility Layout:** Please refer to the diagram below for the configuration of the main NMR Facility (GC-410). Red crosses represent people working at a workstation. As a reminder, users will only be able to reserve Zeus or Artemis in the phase, due to occupancy limits and social-distancing requirements.



Routine and Critical Maintenance:

Cryogen fills require ~40 min per spectrometer weekly, and will be reserved through Faces scheduler.

Spectrometers require ~1 h of routine maintenance and testing each week, and will be reserved through the Faces scheduler.

Cryogenics will be ordered on a regular basis as needed. Typical demands are one low-pressure liquid nitrogen dewar / week (GC-410 & MM-315) and one low-pressure liquid nitrogen dewar / 3 weeks (MRL). Helium needs and orders will be coordinated by the NMR facility director.

In case of prolonged absence of the facility director, contingency plans for the NMR facility should be followed.

Purchasing, Shipping/Receiving, Stockroom Guidelines & Policies COVID-19, Phase 1

In addition to the policies outlined below, all users of the stockroom spaces must follow all guidelines recommended by the state of [Rhode Island](#) and [Brown University](#). Research groups should consult [OVPR's page](#) regarding key documents needed to resume research, including [Resuming Research Guidelines](#). This also includes the [research ramp-up checklist](#) developed by EHS, and the [Geochemistry/MacMillan Guidelines](#).

Face coverings are required while in the building, with the exception of designated reservable break rooms. Personnel are expected to keep their time on campus to a minimum, and all work which can be carried out remotely (e.g. meetings, computation, data analysis, writing) should be continued in this way.

In case of any issues, they should contact the facility director, Eric Friedfeld, by email (eric.friedfeld@brown.edu). Environmental health and safety (EHS) can be reached for **non-emergencies (3-3353)**, and **emergencies (3-4111)**.

Note: Staff from Chemistry and DEEPS will help deliver the initial PPE and disinfectant to the individual lab spaces.

Purchasing:

1. Purchasing coordinator, Robert Wilson, will continue to work from home.
2. Vendor orders can continue to be entered into the current system, where they will be processed on a daily basis. **Note:** Off-campus users will require VPN to access order forms.
3. For purchasing questions or concerns, please email either Robert Wilson (robert_wilson_1@brown.edu) or Eric Friedfeld (eric.friedfeld@brown.edu).

Receiving:

4. Receiving for deliveries scheduled for Chemistry and DEEPS will only occur when the Stockroom Coordinator (Allen Sylvia) is on campus.
 - a. **Chemistry:** Received orders will follow similar procedures, with users being notified by email regarding their arrival.
 - b. **DEEPS:** Received orders will be left on the loading dock or GC-119, and Dave Murray will be notified by the stockroom coordinator via email.

Stockroom:

5. **The Chemistry Stockroom will operate by pick-up only, and only during stockroom hours.**
 - a. Users should submit their stockroom orders through this [Order Form](#), and consult the [Stockroom Item List](#) for the appropriate item numbers. **Orders placed before 12 pm will be ready by 9 am the next day.**
 - i. Users will receive an email upon completion of their order.
 - ii. Users will then schedule a pick-up time via [Google Calendar](#).

Note: Users will not receive their packages unless they schedule a pick-up time through GoogleCalendar!
 - iii. All orders can be picked up from the window in GC-216.
 - b. **Stockroom personnel hours:** Monday – Friday; 8 am – 4 pm. The stockroom maximum occupancy will be **two people**.
6. **PPE & Disinfectant:** Disinfectant, cleaning supplies, and PPE will be available through the strategic sourcing department and EHS, and the stockroom will help distribute such requests

- a. Staff from Chemistry and DEEPS will help with the initial distribution of the 3 reusable face coverings and disinfectant spray bottles by delivering these to individual lab spaces.
 - b. Disinfectant refills and material requests available through the strategic sourcing department and EHS will be coordinated for pick-up from the stockroom. **Please contact Eric Friedfeld (eric.friedfeld@brown.edu) to request additional materials.**
7. **Liquid Nitrogen:** Liquid nitrogen will be moved to the front entrance of the Machine Shop (GC-213A). This door will remain open at all times to allow access after normal stockroom hours, and users should schedule usage with the [Liquid Nitrogen Google Calendar](#).
- Note:** Purchases need to be entered in the online order form!
8. **Bulk Solvent:** Only one researcher may use the bulk solvent room (GC-217) at a time.
- Note:** Purchases need to be entered in the online order form!
9. **Dry Ice:** Dry ice will be accessible from the chest on the loading dock.
- Note:** Purchases need to be entered in the online order form!
10. **Stockroom Layout:** The Stockroom Coordinator desk will be moved to ensure appropriate social distancing in the space.
11. **Cleaning & Disinfectant:** All users will be expected to **use disinfectant wipes or sprays** to clean touched equipment surfaces between use. This includes benches, desk surfaces, keyboard(s) and other computer accessories, door knobs, drawer handles, and phones.

Routine and Critical Maintenance:

In case of personnel illness or prolonged absence of the Stockroom Coordinator, contingency plans for the Stockroom facility should be followed.

Researcher: _____ Email: _____ Phone: _____	
Reaction Location: _____	
Reaction:	Intended Conditions: T: _____ °C P: _____ Stirring (Y / N): _____ Other:
Hazards: <input type="checkbox"/> Acid <input type="checkbox"/> Base <input type="checkbox"/> Oxidizer <input type="checkbox"/> Flammable <input type="checkbox"/> Toxic <input type="checkbox"/> Inhalation Hazard <input type="checkbox"/> Mercury or Heavy Metal <input type="checkbox"/> Reactive Air, Water, Shock, Light, Heat, Halogens, _____ <input type="checkbox"/> Low Hazard <input type="checkbox"/> Biohazard <input type="checkbox"/> Radioactive <input type="checkbox"/> Temperature (High/Low) <input type="checkbox"/> Pressure (High/Low) <input type="checkbox"/> Other:	Emergency Shut Down:
For questions regarding the reaction(s), please contact researcher (above). <u>In case of an emergency, please use the following numbers:</u> EH&S: 401-863-3353 (8:00 am - 5:00 pm) Public Safety: 401-863-4111 Jerome R. Robinson: 267-237-2521	

Researcher: _____ Email: _____ Phone: _____	
Reaction Location: _____	
Reaction:	Intended Conditions: T: _____ °C P: _____ Stirring (Y / N): _____ Other:
Hazards: <input type="checkbox"/> Acid <input type="checkbox"/> Base <input type="checkbox"/> Oxidizer <input type="checkbox"/> Flammable <input type="checkbox"/> Toxic <input type="checkbox"/> Inhalation Hazard <input type="checkbox"/> Mercury or Heavy Metal <input type="checkbox"/> Reactive Air, Water, Shock, Light, Heat, Halogens, _____ <input type="checkbox"/> Low Hazard <input type="checkbox"/> Biohazard <input type="checkbox"/> Radioactive <input type="checkbox"/> Temperature (High/Low) <input type="checkbox"/> Pressure (High/Low) <input type="checkbox"/> Other:	Emergency Shut Down:
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