**MLBS Phase 1 Research Ramp-Up Plan**

**And**

**Laboratory Safety Policy Template**

**Low-density Laboratory and Workspace Occupancy Request Form: To be completed by all UVA and non-UVA PIs conducting research at Mountain Lake Biological Station during UVA Research Phase 1 of 2020**

Please fill in this form and upload at: [mlbs.org/Research-Ramp-Up](https://mlbs.virginia.edu/Research-Ramp-Up)

**PI Information:**

|  |  |
| --- | --- |
| Faculty PI Name |  |
| Institution |  |
| Email Address |  |
| Telephone |  |

**Space involved in this request.**

**Space managed exclusively by you for which you will be requesting access:**

|  |  |
| --- | --- |
| Field Site Location |  |
| Lewis Hall Room |  |
| Wilbur Lab Room |  |

**Common, shared facilities and spaces managed by MLBS which you will need to use:**

“Core facilities” (growth chambers and rooms, imaging, computing, biological collections, chemical lab, greenhouse, outdoor exclosures etc.) you will utilize space or instruments in. Plan development and use scheduling is coordinated by the station. Please submit daily schedule or hours needed per day for each core facility.

|  |  |
| --- | --- |
| Core Facility 1 |  |
| Core Facility 2 |  |
| Core Facility 3 |  |

Add rows if necessary.

*NOTE: Only “critical research” deemed critical by the PI, department, and school will be ramped up in this phase I. As you fill out the names of personnel to request access for, you should briefly describe why the work they will conduct is critical.*

**Why is this project work “critical,” or time sensitive? Please briefly justify the need for this work now. Critical work does not include “normal” research or lab activity that could be done later without significant loss or cost.**

**Researchers for whom you are requesting field station access:**

Copy table and repeat for EACH person who will come to the field station. **No more than EIGHT (8) researcher per lab will be permitted on site at a time. Make sure this is reflected in the date you list below. Please keep the *total* number of individuals to a minimum**. Intensively working small teams will be given preference over large numbers of researchers working less often. No undergraduate student will be allowed on site during Phase 1.

**Researcher 1**

|  |  |
| --- | --- |
| Name |  |
| Email and/or Cell Number |  |
| Title or Position |  |
| Dates to be on Site |  |
| Brief description of why this person’s work is critical |  |

**Researcher 2**

|  |  |
| --- | --- |
| Name |  |
| Email and/or Cell Number |  |
| Title or Position |  |
| Dates to be on Site |  |
| Brief description of why this person’s work is critical |  |

Add tables if necessary.

**Health Safety Compliance:**

You must agree to comply with all procedures outlined in the [MLBS Phase 1 Re-opening Guidelines](https://mlbs.virginia.edu/sites/mlbs.virginia.edu/files/mlbs-phase-1-guidelines.pdf). This includes a limit of 2 people in vehicles on site.

Have you read and agree to the Guidelines?

For additional information, resources, and general UVA guidance, see the University’s [Research Ramp-Up Guidance](https://research.virginia.edu/research-ramp-guidance) web page. Contact MLBS staff if you need help with site, building or lab space information.

**Other requirements:**

Will you be using animals in your research?

 If so, has your protocol been approved by UVA IACUC?

Do you have the necessary materials, supplies, cleaning supplies and PPE for your laboratory?

 If not - list your needs:

By submitting this request, you understand that every researcher listed in this form must sign in and out of MLBS spaces and complete the Health Check at least daily ([mlbs.org/access](https://mlbs.virginia.edu/access)).

No human subject research is permitted at MLBS.

**Please create your own laboratory safety policy statement.** You must provide a statement to all researchers listed here. A template is provided below. Please complete the template and submit with this plan.

# MLBS LABORATORY SAFETY PLAN – Phase 1 Re-opening

**Introduction**

This template plan is provided to assist researchers in clarifying how their laboratory intends to **resume research** aligned with key safety expectations developed by the UVA Office of the Vice President for Research.

**Template Lab-Specific Plan**

**Daily health self-attestation requirement**

Daily health self-attestation is required via MLBS.ORG/ACCESS.

Check here to acknowledge all research personnel will complete the daily health self-attestation [ ]

**Face coverings**

To reduce the spread of COVID-19, research personnel are required to wear face coverings at all times inside MLBS buildings in the presence of others and when distancing measures are difficult to maintain. University policy on face coverings is forthcoming and not available at the time of this posting. Refer to [EHS website](http://ehs.virginia.edu/Chemical-Safety-Masks-Compared.html) for comparison of face coverings and for instruction on obtaining disposable face masks. Refer to [CDC website](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html) for information on donning, doffing, and laundering of cloth face coverings. Personnel are encouraged to use their own face coverings to supplement the disposable face coverings and cloth face coverings that will be made available to the research community by the University.

**There are instances where it is not required or may not be appropriate to wear a face covering:**

* + When a person is in a personal office (a single room with a closable door) and others are not present and coworkers do not regularly visit
		- Check here if this will apply to any lab personnel [ ]
		- Location of personal office and name of personnel:
	+ Individuals who have been advised by a medical professional not to wear a face covering due to trouble breathing, being incapacitated, or otherwise unable to remove a face covering without assistance. In such instances, contact your HR manager to arrange for accommodation.
		- Check here if applicable to any lab personnel [ ]
		- Detail laboratory accommodations to be made:
	+ Instances where wearing a face covering creates a safety hazard at work under established health and safety guidelines (**see below**).
	+ While eating or drinking
		- Detail plans/accommodations for personnel to eat and drink while maintaining physical distancing.

**Some laboratory activities may require different face coverings, PPE, or no face coverings due to specific safety hazards:**

* + Do any work activities involve the use of surgical masks as Personal Protective Equipment (PPE)? For example, manipulation of biological agents outside of a biosafety cabinet where sprays, splashes or spills are possible (e.g. stereotaxic administration).

**Yes**[ ] **/No**[ ]

If yes, surgical masks for those specific activities should be worn, and may be obtained through UVA EHS.

* + Do any work activities involve use of disposable gowns or disposable lab coats?

**Yes**[ ] **/No**[ ]

If yes, disposable masks for those specific activities should be worn, and may be obtained through UVA EHS.

* + Do any work activities involve the use of flame resistant (FR) PPE, for example FR lab coats?

**Yes**[ ] **/No**[ ]

If yes, recommend obtaining FR cloth face coverings.

* + Will specific activities require consideration for no face coverings or alternative PPE? For example, highly hazardous chemical manipulation in a fume hood, where the user may be at a greater safety risk wearing a cloth face covering than not. (e.g. face covering contamination via touch and/or fogging of safety eyewear blocking view of hazardous manipulations.)

**Yes**[ ] **/No**[ ]

If yes, physical distancing (9 ft) should be maintained for prolonged work, and those not doing equivalent activity should continue to wear face coverings. Density of people in lab space must be less than 1 person / 250 sq. ft.

Detail activities and how physical distancing (9 ft for prolonged work) and/or shift work will be managed to accommodate no face covering use and/or alternative PPE. (EHS is available to assist with risk assessment)

**Personnel Schedules, Check-in and Check-out Plans**

Develop personnel schedules that will support physical distancing requirements in your laboratory areas. This will most likely incorporate shift schedules of differing designs, depending on the type and demands of work (e.g. two shifts of personnel per day, one shift per day of two days on/two days off, etc.) Shift plans should include documented ‘check-in’ and ‘check-out’ procedures to enhance contact tracing, should that become necessary.

Detail shift plans:

Detail check-in/check-out procedure:

Daily check in will be accommodated through the MLBS.org/ACCESS form.

**Hand Hygiene**

[CDC recommends](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html) frequent handwashing to reduce spread of COVID-19. Proper handwashing technique is covered in the EHS COVID-19 Awareness and Prevention training. When soap and water are not readily available, CDC recommends using a hand sanitizer that contains at least 60% alcohol, and then washing hands when able. Handwashing supplies are the responsibility of the lab to acquire, while the University has centrally procured hand sanitizer. For as long as the University centrally procures hand sanitizer, EHS will assist in the distribution to research departments in coordination with UVA EM and other operational groups.

* Handwashing supplies (soap and disposable towels) are available.

**Yes**[x] **/No**[ ]

* Hand sanitizer has been made available in areas with no sink.

**Yes**[ ] **/N/A**[ ]

Locations where hand sanitizer is available:

Hallways outside Lewis 210, and in Aquatics lab

**Cleaning and Disinfection Procedures**

CDC recommends frequent cleaning and disinfection of high touch areas in the workplace to reduce the spread of COVID-19. General guidance on disinfection be found on the [CDC website](https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html) and in the EHS ‘COVID-19 Awareness and Prevention’ Training. The list of EPA approved disinfectants for use against SARS-CoV-2 (the virus that causes COVID-19) can be found [here](https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2). Be sure that disinfectants are appropriate for sensitive equipment. Cleaning and surface disinfecting supplies for *research specific areas* are the responsibility of the faculty to acquire. Develop a disinfection plan for laboratory and personal work spaces, including offices.

* Disinfection supplies have been made available in laboratory, common research areas, and research personnel offices.

**Yes**[x] **/No**[ ]

Disinfectant(s) available.

70% EtOH, 5% bleach spray

* High touch surfaces/objects have been identified, along with a schedule for routine disinfection and personnel responsible.

**Yes**[ ] **/No**[ ]

Detail your disinfection plan:

List sensitive equipment and special disinfection procedure:

**APPENDIX A. EHS LAB RAMP-UP CHECKLIST FOR UVA LABORATORIES**

**Public Health Considerations (***key elements from general principles reiterated)*

* Face coverings must be worn at all times (see separate guidelines for how to wear your mask, types of masks, re-use of masks, etc.).When conducting procedures where a surgical mask would typically be used to protect the wearer from mucous membrane exposure to hazardous materials, cloth face coverings should not be used. Examples may include manipulation of biological agents outside of biosafety cabinet where sprays, splashes or spills are possible (e.g. stereotaxic administration).
	+ See [CDC guidelines](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html) for proper donning and doffing of face coverings, and laundering.
* Wash hands upon lab entry, and upon departure.
* Disinfect high touch areas between shifts, or more frequently as desired. Use disinfectant wipes on sensitive equipment.
* Develop a plan for physical distancing in the workplace. Consider the following:
	+ Identify maximum personnel for workspace according to optimal density (~250 Sq. ft. /occupant)
	+ Post maximum occupancy of shared facilities, such as break rooms, kitchens, conference rooms, office suites, copy rooms.
	+ Work in shifts, to include a period of time between shifts to eliminate overlap.
	+ Maintain at least 9’ distance when working in a lab and at least 6’ distance when moving. Visual cues, such as tape, between individual workspaces may be a helpful reminder.
	+ For open/shared suite laboratories, consider if unused spaces can be temporarily assigned.
	+ Rearrange seating, or temporarily remove seating, to allow for physical distancing and maximum occupancies.
	+ It may be prudent to avoid concurrent use of bench tops that face one-another.
	+ Use a ‘Google Doc’, Microsoft Teams, or something similar, in order to maintain a visible schedule for staggered lab equipment sign-up and use.
	+ Avoid working alone whenever possible, but especially when working with hazardous materials.
	+ When your work does not require presence in the laboratory, plan to work remotely instead of your office. Plan experiments before coming to the lab.
	+ Continue to conduct laboratory meetings using virtual platforms whenever possible.

# First Day Back (Phase I & II activities)

* Prior to restarting any research, perform a complete and thorough walkthrough of all spaces you are responsible for to check nothing is obviously out of place, missing, damaged, leaking, etc. Address immediately.
* Ensure you have adequate personal protective equipment (PPE) available for near-term planned research.
* Ensure you have adequate hand-soap and towels for handwashing, and disinfectant appropriate for cleaning lab surfaces and equipment.
* Verify all emergency equipment is functional and accessible.
	+ Flush all eyewashes in your labs for 1 to 2 minutes, given the eyewashes have a functional drain. Check that the temperature is tepid. Document you have checked the eyewash.
	+ Verify that safety showers have been checked by FM in the last 6 months.
	+ Check fire extinguisher pressure gauges to make sure the indicator is in operating range.
	+ Verify emergency equipment, such as eyewashes, safety showers, sprinkler heads, fire extinguishers, and pull stations are visible and not obstructed.
* Check chemical containers for damage, leaks, pressure build up, etc. Request [waste pickup](https://ehs.virginia.edu/Waste.html) from EHS, if needed, particularly for peroxide forming compounds or other chemicals that may have become unstable.
* Power up electrical equipment slowly and one at a time. Potential exists to overload electrical circuits.
* Verify that the chemical fume hood is currently certified by checking the sticker issued by EHS. Test the hood to ensure that the sash can be raised up with one hand to the mechanical stop or 18 inch vertical opening and that it does not go into alarm. If the hood does not have a flow monitoring device, check air flow by using a tissue or Kim Wipe to see if it is sufficiently drawn inward.
* Pour small amounts of water down dry traps/floor drains to mitigate sewer gas smells, which can be confused for natural gas leaks.
* As you begin starting active research again, keep plans flexible to accommodate changes. Documenting lab-specific actions taken can help future decisions.

# General

* Avoid engaging in startup procedures alone. Try to have at least two people present in case any issue arises. Have a general planned schedule of when certain processes should be back up and running.
* Use the opportunity of bringing processes back online to cross-train other members of your laboratory.
* Take things cautiously slow as your research ramps back up. Accidents are more likely to occur if a lab rushes back into research.
* Reconsider beginning with certain experiments or research activity that rely on other facilities, are especially hazardous or long-term in nature.
* Note that shared facilities, such as stockrooms or core labs, may be on different ramp up

schedules or in more demand than during normal operation.

* Be aware that many lab items may be in short supply or have longer lead times, including gases, chemicals, and PPE.
* Schedule deliveries of research materials in smaller quantities and expect delays.
* Avoid sharing PPE if possible.
	+ Conduct a risk assessment to determine the appropriate level of PPE.
	+ Provide individual PPE whenever possible.
	+ Disinfection may be problematic or impractical for some PPE that is commonly shared (e.g. laser glasses, cryogloves). Tasks requiring special PPE may be best designated to select individuals in order to manage public health considerations.
	+ If PPE can be disinfected, do so. Additionally, wash hands before and after use.
* Consider if items worn for public health considerations (e.g. cloth face coverings) may hinder safe use of PPE used to mitigate exposure to hazardous materials.
* Do not wear your lab gloves outside the labs. It will be common to see people in gloves outside labs, and it is best for it to be clear for everyone that anyone wearing gloves is doing so for sanitary reasons only.
* Check that all utilities such as house vacuum and natural gas are operational for your needs.
* Water connections: turn water back on slowly. Check connections for leaks. Do not leave the site right away as some connections may burst after a few minutes. Return to the equipment a short time later to confirm there are no leaks. Call the appropriate service desk to report any leaks immediately.

# Animal Care

* Communicate with your vivarium manager prior to restarting animal research.
* Confirm inventory of controlled substances and proper documentation.

# Biologicals

* Verify that biosafety cabinets have not gone out of certification over the shutdown period.
* Ensure you have CMC’s and sharps containers available before beginning work.
* Ensure appropriate disinfectants for your biological work are available and not expired.
* Verify your CO2 supply before beginning use of incubators.

# Chemicals

* Ensure you have hazardous waste containers available before beginning work.
* Maintain separation of non-compatibles as you get set up in the lab again (e.g. oxidizers and flammable gases, acids and bases or flammables).
* Ensure all compressed gas cylinders are chained/secured.
* Consider leak testing compressed gas piping systems before using.

# Radioactive Materials

* Verify all survey equipment are operating normally. Contact Radiation Safety at 982- 4919 for any survey equipment problems.
* Perform a survey of the lab before beginning work and contact Radiation Safety if contamination is found.
* Perform an inventory check and contact Radiation Safety if any material is not accounted for.

# Equipment

* Freezers and refrigerators may have “died” during the shutdown. Check each by slowly opening door (items may have shifted). If not functioning, close and take appropriate action. Consult EHS if very moldy, a hazardous situation exists, or you need additional waste containers for cleaning out.
* Review manuals for any equipment’s start up procedures.
* Do not daisy chain or use extension cords in attempts to reach emergency power.
* Verify “Laser In Use” lights, door interlocks, or other safety related controls still operate.
* Verify cryogen supply. Do not fill units alone. Contact cryogen suppliers to make any special delivery arrangements/changes necessary.
* Verify heat sources do not have damaged cords before reconnecting to power (includes, but not limited: hot plates, ovens, heat blocks, sterilizers, water baths).

# Department & Building Manager Considerations

* Keep an updated list of which labs are where in the restarting process. If labs have schedules to get back online, request copies.
* Walk through the building, verifying that corridor fire extinguishers, pull stations and emergency egress are not obstructed.
* It may be advised to have a delivery management plan, especially with respect to storage of delivered supplies. Labs in your area may overwhelm standard service plans.
* Centralized gas storage areas are a particularly important area to keep an eye on. All gases must be restrained immediately upon delivery.
* Consider developing a lab visitor policy for your department, to include an entry/exit log for future contact tracing, should that become necessary.
* Departments or laboratories that share common facilities, including break rooms and conference areas, should coordinate schedules and procedures to accommodate public health considerations.