

The University of Rhode Island

Principles and Framework Guiding a Phased Approach to Restarting University Research Activity

(rev. of 11 December, 2020)

Ad Hoc Committee on Continuance of Research Activities During COVID-19 Pandemic:

VP Peter J. Snyder (Chair), Dean John Kirby, AVP Ted Myatt, AVP Ellen Reynolds, Prof. Lynda Stein, Prof. Matt Delmonico, Prof. Geoffrey Bothun, Assoc. Dean Carol Thornber, Assoc. Dean David Smith, Prof. Terry Bradley, Prof. Katharina Quinlan

Preface:

This document had been initially drafted by the University of California at Berkeley, with input by VCRs/VPRs from many other institutions within Association of Public and Land-grant Universities (APLU). At the University of Rhode Island (URI) we are tailoring the document below in order to meet our own particular needs and circumstances.

Our initial focus is on managing access to those types of research spaces to be found on main university campuses and their nearby satellites. These include science and engineering research laboratories, shared facilities for animal research and specialized facilities for scientific instrumentation (including computational facilities). They also include human research (i.e., with face-to-face encounters), maker spaces, and support for scholarly work in the arts, humanities, and social sciences, libraries, and studio and performance spaces.¹ Often remote from the main university campus, additional research spaces include our boats and ship, farms and other off-campus facilities. Some spaces may be in common with collaborating research, evaluation and service partners (e.g., community mental health centers).

URI's planning for, and implementation of, this phased approach to increasing research activities will be revised and updated as necessary, as new 'best practices' and a better understanding of the diagnosis, treatment and health risks of the COVID-19 virus become available.

Guiding Principles

Overarching Goal: To keep everyone safe, while increasing research activity in a phased approach as safety becomes easier to maintain.

Principle #1: *Follow the State of Rhode Island (Governor's Office) directives for shelter-at-home – which may be scaled up or down over time, and as circumstances warrant - and implement Centers for Disease Control and Prevention (CDC) guidelines for hygiene and social distancing.*

- Public health authority (PHA) directives have been restrictive in recent months, but there has also been a “loosening” of these restrictions in Rhode Island, starting on 09 May. However, there may well be the need to return to prior levels of shut-downs in the workplace as circumstances change over time.

¹ This document does not specifically address managing use or access to URI's marine vessels, which is being handled separately at this time.

- Until there exists adequate community-based testing (for either the virus and/or the antibody), a clinically effective treatment for the disease, and/or sufficient herd immunity, we will likely experience a fluctuating set of risks and safety measures for the next 12 to 24 months (and possibly longer).
- Older faculty and staff and/or those with underlying health conditions that place them at increased risk, are advised to follow all Rhode Island Department of Health (DOH) guidance with respect to sheltering at home longer. Specific risk factors for poorer outcomes following viral infection may be found at: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/groups-at-higher-risk.html>
- URI will continue to preferentially adhere to stay-at-home and other health protective measures as deemed appropriate by Rhode Island DOH and the Governor's Office, in cooperation with other New England and eastern states.
- It is fair to expect that between "only essential/minimal activity outside of the home" and "return to business as usual," there will be intermediate phases of increased access, with two to three weeks between phase changes, with the possibility of returning to a more restricted phase should COVID-19 infections again rise.

Principle #2: *Protect the health and safety of the research workforce, our students, as well as the health and safety of our human research participants.*

- No researcher should feel they are being compelled to work on campus, on university/off-campus farms, or in the field during periods of broad shelter-at-home directives. Safety within laboratories must be rigorously maintained, with adequate access to personal protective equipment (PPE) and other safety related supplies. Principal investigators (PI) must identify who among their workforce are considered to be essential personnel (and their corresponding replacements/backups), and a process should be established whereby any faculty, staff or students who feel uncomfortable about their work situation can either ask for assistance with Human Resources (HR) or report their concerns anonymously to URI's Ethics Hotline (<https://uri.alertline.com/gcs/welcome>). At URI, these reports will be investigated by the Vice President for Research & Economic Development (VPRED), and other leadership as appropriate, including Deans and Department Chairs.
- Limited ability for face-to-face contact is likely to persist for some time, and researchers will need to adapt to longer term limited access. State and national guidelines suggest that access should only be restored once there is more pervasive testing and contact tracing. Ultimately establishing immunity, through serological testing or an effective vaccine (or by the development of an effective treatment) may be a prerequisite for a full return to business as usual (to be determined), but that could take many months at best, or a few years at worst.
- Given that the relaxation of access constraints is locally determined, it may be especially challenging to ramp-up projects that are distributed across sites or which depend on multi-state and/or international collaborations.
- URI has allowed essential field research to continue, but these instances are approved on a case-by-case basis by the VPRED if out-of-state travel is required. Lifting of travel restrictions, such as those that limit international travel or restrict non-essential travel, are necessary before all normal field research can recommence. This includes human subject related field research that must be conducted in person.

Principle #3: *Implement a fair and transparent process for determining access to university buildings.*

- The conditions and priorities for allowing access, and for face-to-face contacts, should be rational, non-arbitrary, and transparent to all. These conditions should map directly to the staged approach that is planned by RIDOH and the governor's office.
- While the vast majority of people who have been allowed continued access are following the social distancing rules and maintaining low density within research spaces, a small number of abuses are inevitable. Enforcement will be by periodic inspection of authorized spaces by Environmental Health & Safety (EH&S) and facilities management, the VPRED, the auditing of card key swipes (when possible), and the engagement of Deans and Department Chairs applying discipline to abusers.
- It is everyone's job to respect and adhere to social distancing and density limitation guidelines for different kinds of activities in research space; the guidelines for a life sciences laboratory will differ from an art studio space.
- No one should come to work if they feel sick with any flu-like or other symptoms that have been attributed to this virus. Moreover, if any employee, student or faculty member becomes sick, a viral or antibody test will be required prior to return to work. If any such testing is positive, then the affected individual must adhere to state and CDC guidelines for isolation. For a list of symptoms to self-monitor for, please see: <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>
- All faculty, staff and students must keep daily logs of their personal contacts, outside of immediate family members, such that appropriate and effective contact tracing may be completed for anyone who becomes ill and/or is presumed to have had a possible exposure to the virus.

Phases and Permitted Research Activities

The five-phase description and tabular representation (see below) has been modified from the University of Washington's research resumption plan. Lower phases are more restrictive, higher phases less so.

Public health directives and the current state of the health care and COVID-19 public health response systems determine the timing as to when any given institution in its local context is permitted to move up or down between phases (See Principle #1 above). Before allowing greater researcher access to labs, libraries, and other research spaces, a plan for the rigorous enforcement of social distancing directives is necessary. Elements of such a plan may include (this list intended to illustrative, not exhaustive): scheduled/work-shift access; required facial coverings; minimum distancing between occupants; depending on size of research space and nature of activity therein, density limits such as no more than 2 researchers per bench, 1 researcher per 113 sq ft², maximum number of faculty allowed to enter into office or library spaces, maximum numbers of individuals per lab unless further density is justified and approved; daily self-monitoring of temperature and symptoms following guidance from the URI COVID-19 Health & Safety Committee; disinfecting books or artifacts after use by researchers; disinfecting work surfaces after use; and so on.

Example: All investigators using rodent facilities must wear a face covering anytime they are in the facility, for the protection of the Comparative Biology Resources Center (CBRC) staff. CBRC provides these masks; however there are challenges in maintaining PPE stocks. Therefore, CBRC has requested that investigators reuse masks where possible and be prepared to provide their own PPE in the face of shortages. VPRED and CBRC have provided guidance to PIs to maintain a low social density as well as social distancing (6 ft

² With radius, $r = 6$ ft, and with A (area) = $\pi r^2 = 113.1$ sq. ft.

preferable). CBRC will be creating “Users Calendar” to sign up and monitor their own activities within the rooms or suites.

PHASED APPROACH

At the highest level, most institutions appear to be planning around three phases: shutdown, some intermediate state, and business as usual. In the approach advocated here, we identify finer graduations between “shutdown” (most institutions are never fully closed, but continue to support some minimal standby capability) and return to full access and activity:

- Phase 1 represents access restricted to critical and high priority activities, such as (but not limited to) COVID-19 rapid response research, and for the maintenance of essential research capability such as animal care, essential equipment upkeep, and supporting institutions and agencies performing immediate and direct care of vulnerable persons.³
- Phase 2 represents a degree of access, as permitted by the university and public authorities, with priorities given to time-sensitive research activities.
- Phase 3 represents a level of access permitting new research to be initiated if it has been identified as a priority by the PI. We estimate that this represents 50-70% of normal activities.
- Phase 4 represents a level of access allowing most research activity, while maintaining the density of research personnel at no more than 70-90% of normal density.
- Phase 5 represents business as usual, full campus density and activity.

Note: Movement from one phase to another may occur in either direction, based on public health concerns and directives from the governor’s office of RI Department of Health.

³ **Time-sensitive and Essential Research** is defined as:

- Active research intended to improve the ability to detect, diagnosis, treat or protect others from the COVID-19 virus.
- Continuation of ongoing research that, if halted, would compromise the accrued value of one or more year’s work to date, such as studies involving multi-year longitudinal data collection.
- Access to laboratories to ensure the integrity of biological samples (e.g., cell cultures), to provide required maintenance of expensive equipment, or to maintain the health, nutrition, and/or proper care of live animals and plants.
- Research projects that a principal investigator (PI) deems to be essential for near-term grant submissions
- Research that must be continued to serve the *immediate* health, safety and/or nutritional needs of under-served and vulnerable populations/communities.

PHASE	EXTERNAL CONDITIONS	SUMMARY & METRICS	CRITERIA	TIME PERIOD
1	<p>Most restrictive:</p> <p>Situation unknown and changing. COVID-19 hospitalizations on the rise; testing limited; PPE shortages</p> <p>Initial Stay Home/Stay Healthy directive in place</p> <p>Researchers must be designated as Essential to be on site, per prior communications from the VPRED & Provost.</p>	<p>Only research deemed critical is allowed</p> <p>Researchers must be designated as ‘essential’ to be on site</p> <p>On-campus access allowed to maintain research capability or prevent catastrophic disruption</p> <p>COVID-19 related research encouraged</p>	<p><i>Research access limited to social-distanced essential personnel (see above) only for priority research activities:</i></p> <ul style="list-style-type: none"> • Minimum staffing. • Infrequent and limited access to faculty offices to pick up books and materials, shut down instrumentation, etc. • “Essential Research”, where a delay would have significant financial impacts or catastrophically disrupt the project, community health partnership or protocol. Completion of critical projects - no “new” projects can be initiated on campus that do not meet the definition of essential research (see footnote #2, above). • COVID-19 related rapid response activities (e.g., diagnostic tests, ventilators, risk reduction strategies, etc.) • Prioritize core facilities that support COVID-19 research • Field Research: Prioritize seasonal data collection or experiments close to completion where pause or deferral would lead to “catastrophic loss” of research results. Undergraduates are generally not approved to participate, but exceptions will be made as deemed appropriate by individual college Deans and/or the VPRED. 	3/16/20-present (at least thru 5/8/20)
	<i>Preparations for moving to less restrictive phase</i>		<ul style="list-style-type: none"> • <i>Necessary core facilities are staffed and operational</i> • <i>Labs are able to purchase necessary supplies</i> • <i>Social distancing, facial coverings, cleaning measures understood and in place (e.g., face coverings for all on-campus personnel required) All personnel should familiarize themselves with proper donning and doffing of PPE: https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html</i> 	
2	<p>To move from more restrictive to this phase:</p> <p>Local COVID-19 hospitalizations flatten, then drop, COVID-19 testing capacity remains limited, PPE shortages still exist</p>	<p>Definition of “essential” includes time-sensitive research, in addition to the above.</p> <p>All research that can be done remotely should continue</p> <p>URI may implement one or more technological solutions to monitor building access, social</p>	<p><i>Deadline-driven research activities:</i></p> <ul style="list-style-type: none"> • Seasonal data collection such as field and agricultural work, experiments close to completion, or deadline driven, <u>whose pause or deferral would lead to catastrophic delay or loss of research results (see above).</u> • Animal experiments where a delay would result in euthanasia or loss of a colony. • Research and evaluation with community partners engaged in human health activities, where delay would result in negative impact on partners and/or health-related activities. • Prioritize access for graduate students and postdocs close to completing their degree/term of appointment. • Prioritize research for completion of grants with end dates within 6 months of transition to Phase 2. 	May

	<p>RIDOH & Governor allows work to include persons beyond ‘essential workers’</p> <p>No one should come to campus with any flu-like symptoms or elevated body temperature.</p> <p>Everyone should maintain a log of their daily contacts</p>	<p>distancing, body temperature and/or other parameters designed to manage campus health safety in the continuing absence of sufficient virus testing capacity on campus and within Rhode Island.</p> <p>Plans for sudden return to Phase 1 in place</p>	<ul style="list-style-type: none"> • <u>Core facilities</u>: use facilities based on sufficient ‘customer’ demand (approved projects, community partnerships) where work cannot be done remotely. • Explore options for expanded/contracted on-campus library research (e.g., paging services, where faculty and grad students nearing degree completion can order books and other materials to pick up from campus location). Prioritize researchers with deadlines (tenure, book contracts, degree completion, etc.). Access to offices for those at critical career points (tenure, promotion). • <u>Field research</u>: expand/contract approvals depending on what current restrictions are in the settings or countries where field research is to be conducted. 	
	<p><i>Preparations for moving to less restrictive phase</i></p>		<ul style="list-style-type: none"> • <i>Core campus functions are staffed and operational to handle increased load (e.g., CBRC)</i> • <i>Core facilities are staffed and operational</i> • <i>Social distancing, face mask, cleaning measures remain in place</i> 	
<p>3</p>	<p>To move from more restrictive to this phase:</p> <p>Local COVID-19 hospitalizations continue to decrease, COVID-19 testing capacity meets community monitoring needs, PPE more widely available</p>	<p>Gradually expand/contract # of people on campus while maintaining social distancing in common areas.</p> <p>Critical new on-campus research allowed, but labs/groups only allowed to operate with social distancing All research that can be done remotely should continue to be, including all seminars, group meetings, etc.</p>	<ul style="list-style-type: none"> • Allow access to offices for faculty and grad students with continuation of social distancing and max occupancy per building • <u>Field Research</u> – expand/contract on case by case basis (depending on local conditions/restrictions at field sites, travel restrictions, ability to travel safely and ability to social distance at field sites) • Use of libraries, archives, labs, and collections to limited numbers of researchers using hygiene and social distancing protocols. Access to offices can be allowed with social distancing practices in place (see above). • <u>Human research (not already covered above) allowed to occur</u> while adhering to all social distancing guidance. If physical examination is required, full PPE use is mandatory. 	<p>June 15 - TBD</p>

4	<p>To move from more restrictive to this phase:</p> <p>New cases of COVID-19 are low.</p> <p>COVID-19 testing is at maximum needed capacity</p> <p>PPE availability normal</p> <p>Restrictions in place - standards for activity based on ability to social distance</p>	<p>Continued expansion/ initiate contraction of research on campus while maintaining social distancing</p> <p>Critical new on-campus research allowed, but labs/groups only allowed to operate with social distancing</p> <p>All research that can be done remotely should continue to be, including all seminars, group meetings, etc.</p> <p>On site research activity estimated at 70-85% of normal</p>	<ul style="list-style-type: none"> • <u>Field Research</u> - further expand/ continues on case by case basis (depending on local conditions/restrictions at field sites, travel restrictions, ability to travel safely and ability to social distance at field sites) • Access to offices allowed generally, with attention to social distancing and cleaning • Access to libraries, collections, studio spaces, performance spaces and labs with social distancing and disinfection of materials 	TBD
5	<p>To move from more restrictive to this phase:</p> <p>Vaccine or effective treatment is widely available and used in combination with widespread testing and identification of new COVID-19 cases, with quarantining</p> <p>No or minimal state restrictions</p>	<p>All types of on-site research are allowed</p> <p>On site research activity normal and growth opportunities are being explored</p>	<ul style="list-style-type: none"> • Restart/ continue normal research operations, including opening/ maintaining libraries, field research and human subjects research. 	TBD

Additional Requirements:

- Principal Investigators should be assessing ongoing awards and **actively document** COVID-19 impacts (e.g., reduction in time spent on award, inability to recruit research participants). This documentation may be needed to add to the next period's effort certification documentation.
- Laboratory PI's and studio/shared workspace directors must develop and maintain a safety plan for restarting their unique facilities. Start now to develop restart/safety plans based on the above noted phases - **Plans should be flexible enough to enable the swift ramp down of research to an earlier phase in response to changing circumstances.**
 - Plans must comply with physical distancing requirements and should provide for the lowest density of people reasonable to carry out research, and gatherings, including group meetings, and even one-to-one discussions should continue to occur virtually.
 - Consider staggering work schedules to maintain low personnel density
 - PI's should register their work plans with the Dean of their college where the lab or facility is located, including a listing of all individuals who will access their facility (and updated as needed).
 - Follow all university requirements for reporting and tracking of symptoms of illness, following procedures and practices to be determined by the COVID-19 Health & Safety Committee
- Adhere to URI Facilities and URI COVID-19 Health & Safety Committee guidance on the cleaning/sanitizing labs and research work spaces prior to restarting work
 - Research teams utilizing shared space must coordinate their plans
- Any personnel (including graduate students) returning from out-of-state and international locations are required to follow current guidance on 14-day self-quarantine in Rhode Island prior to reporting to campus – these individuals should work from their place of quarantine to the greatest extent possible if they are asymptomatic. This requirement will be amended as needed, over time, to comply with RIDOH guidance and executive orders by the governor.
- DO NOT restart research that requires PPE without first ensuring/acquiring an adequate supply of PPE.
- Non-critical research that generates large volumes of hazardous waste and/or necessarily involves chemical, biological, radiation or other hazardous materials should not restart until Phase 4.

- Engagement in research should be limited to URI employees and registered students (including participants in special educational programs [e.g., SURF, Coastal Fellows]). Involvement of unpaid volunteers in research should be minimized until Phase 4 (or 5) is reached.
- All restart planning must consider the needs of employees/students with current disability accommodations or those who will require new accommodations, as may be practical for related duties and complies with law.

Laboratory Techniques for the Management of COVID-19 (All Phases)

These procedures are roughly based on Biosafety Level 2 strategies.

1. Lab access will be restricted, as follows, until Phase 5 (see above chart) is reached.
 - a. Only personnel who are practicing strict CDC-recommended social distancing, in their daily lives, will be allowed to access URI facilities. The university recognizes that it is relying on faculty, staff and students to adhere to the following principles, in good faith:
 - No attending gatherings with more than 5 people (to be modified from time to time, by governor's executive order)
 - Keep a distance of 6ft from people outside your household
 - Wash your hands frequently and whenever touching objects that have been touched by other people (take out food, groceries, etc.)
 - If you or somebody in your household has flu like symptoms, you should stay at home. A review of symptoms can be found at: <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>
 - b. Only essential employees are allowed access to the lab. This includes graduate students, PIs, participating faculty and support staff. This does not generally include undergraduate students, although exceptions may be made in the case of animal care, or at the discretion of a college dean or VPRED.
 - c. Whenever possible, lab access will be limited to one person.
 - If more than one person needs to access the lab at once, the most recent CDC guidelines for social distancing will be in effect.
 - Use the "buddy" system. Ensure that, even if you are alone in the laboratory, somebody in the building has access to the lab and checks on you frequently.
 - Follow specific reporting and lab access instructions as put in place by individual college dean's offices and/or individual building managers.
 - For work in close proximity, face coverings should be worn.
 - Lab doors must remain closed at all times.
2. Disinfection and decontamination

- a. Wash your hands each time you enter/exit the lab.
 - b. Limit the number of times you enter/exit the lab as much as possible.
 - c. Work surfaces should be disinfected at the beginning of each day (or researcher shift), before and after an experiment, and at the end of the day (or researcher shift). This includes work surfaces, equipment, keyboards and computer mice, door handles, and light switches.
 - d. Disinfect with any of the following solutions/materials:
 - 10% bleach made fresh each day
 - 70% alcohol (ethanol, isopropanol)
 - Disinfectant wipes (or equivalent)
 - Any disinfectant registered by EPA for effectiveness against SARS-CoV-2 and any microorganisms that are being used for research purposes; EPA registered disinfectants are listed here: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
 - Do not mix alcohol and bleach disinfectants, this can produce harmful byproducts.
 - e. Keep personal items and outdoor clothes (coat, backpack) separated from your work area. Avoid using any personal electronic devices and, if you need to use them, disinfect before and after use.
3. Visits to the lab
- a. Visitors to the lab should be discouraged except when absolutely necessary.
 - Conduct as much business with potential visitors outside of the lab and at a social distance.
 - b. When equipment/samples are exchanged, they should be exchanged from a social distance.
 - One person drops off the equipment, then walks away and the other person picks it up. Drops should be secure (e.g., person who drops observes the pick-up and does not leave equipment unattended or vulnerable to misplacement).
 - The exchanged equipment should be disinfected by the person who drops off the equipment and the person who is picking it up
4. Personal protective equipment (PPE)
- a. PPE should be worn whenever appropriate, and at a level necessary to complete individual tasks (e.g., animal care) as determined by relevant managers (e.g., CBRC/animal care standard operating procedures)
 - With shortages in PPE, please be careful to use our limited resources wisely. Masks should be worn when working in close proximity to others.
 - b. Never wear gloves while using a computer, mouse, or when touching a door knob.