## **DRAFT Research Restart Plan**

The University of Arizona has committed to providing services to maintain and protect the health and welfare of its students and staff and has identified the following seven public health domains that are applied to the campus planning process (<https://provost.arizona.edu/content/campus-re-entry-plan-working-group>)

1. **Test:** Offer prompt and readily accessible viral (PCR) testing to all symptomatic individuals, as well as strategic sampling of asymptomatic individuals, and offer prompt and readily accessible **antibody testing** to members of the UA community.
2. **Trace:** Actively **trace contacts** of all individuals who test positive for COVID-19 and offer information and testing to close contacts.
3. **Treat:** Provide **health care support, affordable housing**, and **wrap-around wellness services** for individuals with COVID-19.
4. **Offer flexible participation:** Offer remote and hybrid learning, working, and teaching options for students, staff, and faculty to protect individuals vulnerable to COVID-19 and reduce crowding.
5. **Minimize contact and reduce crowding:** Reduce instances of close physical contact among students, faculty staff, and visitors during on-campus activities
6. **Minimize transmission:** Reduce the probability of transmission of SARS-CoV-2 during in-person campus activities.
7. **Communicate:** Maintain an active COVID-19 Reopening Campus **communication plan**.

**Restarting Campus Research**

The following guiding principles were established to support the broader campus re-entry efforts and reopening of the campus, and to protect the health and safety of the University of Arizona research workforce, clinical patients, and human research subjects:

1. Protect the careers of early career faculty/researchers.
2. Protect the ability of our students to complete their degrees.
3. Provide clear and fair guidance on research restart.
4. Participate in COVID-19 research, testing, tracing, and treatment.

**Considerations for Resuming Research Operations**

**Six-Phase Outline to Restart Research on Campus**

The table in this document represents a six-phase approach to research on campus. We will use this approach to restart research. If positive COVID-19 infections rise dramatically at any time, the university would need to revert to an earlier phase, depending on the conditions at the time. The campus must deploy primary public health controls to slow the transmission and reduce the mortality associated with COVID-19. These control measures include availability of appropriate personal protective equipment (PPE); environmental measures such as enhanced cleaning and disinfection, physical distancing, testing, and contact tracing; and the readiness of the campus and local health care systems and the campus infrastructure.

A number of courses of action were considered in planning for research restart.

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| **Start options** | **Definition** |
| **“Instant On”** | All research activities are restarted concomitantly and proceed to normal operations immediately. |
| **“Rolling Start”** | All research activities are restarted concomitantly and proceed to normal operations by start of the Fall term. |
| **“Staggered Start”** | Research is restarted on a deliberate schedule designed to minimize risk and ensure cores, essential instruments, data analytic systems, and facilities are available when needed by other labs. |
| **“Critical Hold”** | High risk laboratories and field work are shuttered until the vaccine is available, and in broad use, all other research activities return to normal by start of the Fall term. |

While the **Staggered Start** is attractive for ensuring that foundational research capabilities are operational to support and leverage additional research laboratories, in reality a large number of the cores are already operational, and many systems have stayed operational throughout our current operating condition. Each foundational research capability (as well as each research laboratory) will go through organic changes in operating posture that will require adaptation and flexibility as COVID-19 impacts staff and operations there. The **Instant On** approach does not align with the current Governor’s order or advice from public health experts.

By focusing on the use of controls (e.g., engineering controls, N95 respiratory protection) in high-risk laboratories and field work, and through management controls proposed by a multitude of such researchers, there is no need to go to a **Critical Hold** strategy. Certainly, vaccination when it is available, will provide the greatest benefit to these high-risk laboratories and field workers as we return to normal operations.

**Recommended Start**

This **Rolling Start** approach **is recommended** to best conduct a successful restart and climb-out process of bringing UArizona research back to full strength, while fully protecting our researchers and students and their human research subjects, providing appropriate care for animal subjects, and maintaining compliance across regulatory requirements.

**Questions/Assumptions**

An effective and compliant research restart will require many people from many areas of campus. This draft is not meant to duplicate or supersede guidance on areas that are not in the purview of Research, Innovation & Impact (RII), including, but not limited to:

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| **Sanitation/Cleaning** | Facilities Management will issue information on timing/frequency of cleaning. |
| **Masks/PPE** | Institutional procedure/policy on the wearing of cloth masks where PPE is otherwise not required is under discussion. |
| **Testing/Tracing** | Guidance on wellness checks/screening is forthcoming, including any role the UA might have in providing materials/supplies.  Technology must supplement, not supplant, in-person public health contact tracing methods.  Back to pre-virus conditions is not assumed without a viable vaccine and/or treatment. |
| **Buildings/Signage** | The UA Campus Re-Entry team is discussing signage and other visual materials to manage distancing and personnel limits in spaces. |
| **Compliance Monitoring** | Central communication on orienting to these conditions will be necessary.  Current compliance hotline/site will remain in place for reporting. |

**University of Arizona - 6 PHASE START TO RESEARCH**

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| **PHASE** | **EXTERNAL CONDITIONS** | **SUMMARY & METRICS** | **CRITERIA** | **RESPONSES** |
| **1** | **Situation unknown and changing**  COVID-19 hospitalizations on the rise  Testing limited, PPE shortages | **Only research deemed Essential is allowed**  Researchers must be designated as Essential and have an approved waiver to be onsite  [See link for definition of essential](https://research.arizona.edu/sites/default/files/data/Memo_Essential%20Research%20ERC%20final.pdf)  [Waiver link](https://rii.arizona.edu/)  On site researcfh activity estimated at **5-10%** **of normal** | *Research facilities and field stations are closed, except where personnel are required to protect life, safety, and Essential research infrastructure/capability* (maintaining cell lines, animal health, instrumentation, etc.)   * Minimum staffing * Authorization for one time access to faculty offices to pick up books and materials, shut down instrumentation, etc. delegated to deans * Departments have submitted COOP / Mitigation Plans in anticipation of next Phase   Closed labs have submitted shutdown documentation to RLSS. | Social distancing is the primary strategy:   * Workers should minimize their presence in the lab; stay home if symptoms are present and contact Campus Health and/or their Primary Care Provider (PCP) * Remote work only, except in “essential” cases * Researchers must complete waivers to continue research operations   Ramp work down safely and compliantly, in accordance with RLSS guidance for temporary lab closures and in accordance with applicable regulatory requirements. |
| **2** | **COVID-19 hospitalizations on the rise, testing limited, PPE shortages**  **Initial Stay Home/Stay Healthy directive in place** | **On-campus access allowed to maintain research capability or prevent catastrophic disruption, new work not allowed to start unless it is COVID-19 research, which is encouraged**  Researchers must be designated as Essential to be on site, via the waiver process  On site research activity transitions to an estimated **15-35% of normal** | *Research access limited to physical-distanced essential personnel only for Essential research activities*:   * COVID-19 research (studies of COVID-19 and/or treatment of patients with COVID-19) * Catastrophic loss (experiments than cannot be stopped immediately without irreplaceable loss of important cells, human and/or animal subjects, crops, materials, long-term data collection, equipment) * Significant harm to a long-term program, the continuity of which is essential * Student completion (requiring final experiments or continuous data collections by a student who is scheduled to graduate this semester   In addition:  Field Research: Prioritize seasonal data collection or experiments close to completion where pause or deferral would lead to “catastrophic loss” of research results   * Agricultural production deemed essential by governor’s executive order * Research involving face-to-face interaction is not allowed, except in cases of clinical safety. * Students may be approved to participate. * As Banner Health opens clinical visits, attention must be paid to relatedness of these visits to research studies, and opening of clinical research. | Eliminate/severely curtail transmission primarily through social distancing:   * Researchers should work remotely as much as possible * If they have obtained a waiver, perform daily wellness checks, stay home if exhibiting any symptoms, and contact their health care provider * Keep [200 ft](https://uh.edu/research/news/announcements/2020/0320/covid-19-information-and-resources/reopening-research/) per person when in the same location. Single occupancy only in vehicles when traveling to and from field sites for field research.   Utilize engineering controls to prevent transmission and researcher exposures:   * Block pathways and place cues on the floor to indicate acceptable distances for workers * Cover porous surfaces (fabric chairs) with nonporous and disposable materials (e.g. plastic covers) * Ensure general lab and room ventilation works appropriately; if possible, increase air changes per hour in all workspaces * Segregate workspaces   Create and implement new work practices to reduce transmission:   * Create shifts (AM/PM) or altered schedules (alternating days, weeks, etc.) * [Disinfect all surfaces](https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html) at least daily; high traffic areas can be cleaned more regularly * Modify work tasks to increase distancing * Wash hands frequently, following CDC guidelines   Use personal protective equipment as a last defense: face masks, face shields, and/or respirators are the primary controls   * CDC guidelines for facemasks should be strictly adhered to * Masks should not interfere with other PPE, like safety goggles or face shields   Field researchers should take separate vehicles, clean equipment before and after use, and maintain social distance as much as possible.  Contact RLSS to help assess the best strategies for their research. |
|  | *Preparations for next phase* |  | * *Necessary core facilities are staffed and operational* * *Labs are able to purchase necessary supplies*   *Physical distancing, face coverings, cleaning measures understood and in place (e.g., face coverings for all on-campus personnel required)* |  |
| **3** | **Local COVID-19 hospitalizations flatten, then drop**  **COVID-19 testing capacity increases; of those tested in state and county: positive less than 10%**  **PPE shortages still exist**  **Public health authorities & Governor relax restrictions on ‘essential workers’**  **Local schools still closed/ teaching remotely for rest of academic year**  **Exposure Alerting Pilot begins for volunteer labs, which may include** [**Technology-Assisted Contact Tracing (TACT)**](https://www.aclu.org/report/aclu-white-paper-principles-technology-assisted-contact-tracing)**, symptom query apps, PCR, and serological testing on campus** | **Definition of “Essential” relaxed to include time-sensitive research**  Explore options for Humanities & Social Sciences  All research that can be done remotely should continue in that manner  On-site research activity transitions to an estimated **35-50% of normal**  Develop process to review/approve new work  ***Plans for sudden return to Phase 1 or 2 in place*** | *Deadline-driven research activities:*   * Seasonal data collection such as field and agricultural work, experiments close to completion, or deadline driven, where a pause or deferral would lead to catastrophic delay or loss of research results. * Animal experiments where a delay would result in euthanasia or loss of a colony * Prioritize access for students and postdocs ~1 year from completing their degree/term of appointment. * Prioritize research for completion of grants with end dates within 3 months ~July 31, 2020 (where funding agency has not granted leniency) Documentation from sponsor requiring continued work may be requested * Core facilities: restart facilities based on sufficient ‘customer’ demand (approved projects) where work cannot be done remotely * Humanities & Social Sciences: Explore options for expanded on-campus library research options (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.) for access to libraries (rare books/materials) on a limited basis. Some monitored access to offices for those at critical career points (tenure, promotion).   Field research: expand approvals depending on what current restrictions are in the counties where field research is to be conducted. | Eliminate/severely curtail transmission primarily through social distancing:   * Researchers should work remotely as much as possible * If they have obtained a waiver, perform daily wellness checks, stay home if exhibiting any symptoms and contact their health care provider * Keep [200 ft](https://uh.edu/research/news/announcements/2020/0320/covid-19-information-and-resources/reopening-research/) per person when in the same location. This includes transportation to and from field sites for field research.   Utilize engineering controls to prevent transmissions and researcher exposures:   * Block pathways and place cues on the floor to indicate acceptable distances for workers. * Cover porous surfaces (fabric chairs) with nonporous and disposable materials (e.g. plastic covers). * Ensure general lab and room ventilation works appropriately; if possible, increase air changes per hour in all workspaces. * Segregate workspaces.   Create and implement new work practices to reduce transmission:   * Create shifts (AM/PM) or altered schedules (alternating days, weeks, etc.) * [Disinfect all surfaces](https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html) at least daily; high traffic areas can be cleaned more regularly * Modify work tasks to increase distancing * Wash hands frequently, following CDC guidelines   Use personal protective equipment as a last defense: face masks, face shields, and/or respirators are the primary controls   * CDC guidelines for facemasks should be strictly adhered to. * Masks should not interfere with other PPE, like safety goggles or face shields.   Field researchers, when approved, must take separate vehicles, clean equipment before and after use, and maintain social distance as much as possible.  Contact RLSS to help assess the best strategies for maintaining health and compliance for their research. |
|  | *Preparations for next phase* |  | * *Core campus functions are staffed and operational to handle increased load (Facilities, RLSS, Campus Health, etc.)* * *More core facilities are staffed and operational* * *Labs are able to purchase necessary supplies* * *Social distancing, face mask, cleaning measures understood and in place;* * *Daily symptom query app and Bluetooth app for contact tracing installed for at least 60% of people on campus; human contact tracers trained and protocols in place for notifications and quarantine/isolation available for approximately 1% of campus population* |  |
| **4** | **Local COVID-19 hospitalizations continue to decrease;**  **COVID-19 testing capacity near maximum of needed: on-campus testing of all with symptoms, and random testing of 1-2% of campus population w/o symptoms per week;**  **Continue Exposure Alert Pilot for volunteer labs, more widespread use of TACT; sufficient contact tracers trained and protocols in place for notifications and quarantine/isolation**  **PPE more widely available**  **Further relaxation of restrictions - standards for return to normal** | **Gradually expand # of people on campus** while maintaining social distancing and requirements set so that >60% of people on campus are using Bluetooth contact tracing app    **Essential new on-campus research allowed, but labs/groups only allowed to operate at 50-70% total personnel capacity, with social distancing.** All research that can be done remotely should continue to be, including all seminars, group meetings, etc.  On-site research activity transitions to an estimated **50-70% of normal**  ***Plans for sudden return to Phase 1, 2, or 3 in place*** | * Must maintain social distancing and max occupancy per building and require use of symptom query and Bluetooth contact tracing apps * Field Research - expand 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) * Humanities and Social Sciences - allow 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). | Eliminate or curtail exposures with social distancing required   * Stay home if symptoms are present and contact Campus Health or health care provider * Complete daily wellness checks before going into the lab or office * Research should be conducted remotely (computer work, data analysis, etc.) whenever possible * Keep [200 ft](https://uh.edu/research/news/announcements/2020/0320/covid-19-information-and-resources/reopening-research/) per person when in the same location.   Engineer potential exposures out:   * Block pathways and place cues on the floor to indicate acceptable distances for workers * Cover porous surfaces with non-porous materials that can be cleaned regularly * Ensure ventilation works, and if possible, increase air changes per hour * Segregate workspaces   Create new practices to reduce transmission:   * Create shifts or altered schedules; use remote check-in (Zoom or phone call, text, etc.) for lone lab workers * [Disinfect all surfaces](https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html) at least daily; high traffic areas/equipment should be disinfected multiple times per day * Modify work tasks to increase distancing. * Wash hands frequently, following CDC guidelines   Use face masks, face shields, and/or respirators to help mitigate community transmission   * CDC guidelines for facemasks should be strictly adhered to * Masks should not interfere with other PPE, like safety goggles or face shields   Field researchers, when approved, must take separate vehicles, clean equipment before and after use, and maintain social distance as much as possible.   * Contact RLSS to help assess the best strategies for maintaining health and compliance for their research. |
| **5** | **New cases of COVID-19 are low**  **COVID-19 testing is at maximum-needed capacity**  **Exposure Alert Pilot transitions to Program**; contact tracing and quarantine of contacts continue  Sustained normal PPE availability  Further relaxation of restrictions - standards for activity based on ability to social distance | **Continued expansion of research on campus** while maintaining social distancing    New on-campus research allowed, but **labs/groups only allowed to operate at 70-90% total personnel capacity, with social distancing**  All research that can be done remotely should continue to be, including all seminars, group meetings, etc.  On-site research activity estimated at **70-85% of normal**  ***Plans for sudden return to Phase 1, 2, 3, or 4 in place*** | * Field Research - further expand 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   To be considered: Could some Human Subjects Research resume under limited conditions? | Eliminate/severely curtail transmission primarily through social distancing:   * Researchers should work remotely as much as possible * Continue to perform daily wellness checks, stay home if exhibiting any symptoms and contact their health care provider * Keep [200 ft](https://uh.edu/research/news/announcements/2020/0320/covid-19-information-and-resources/reopening-research/) per person when in the same location. This includes transportation to and from field sites for field research.   Utilize engineering controls to prevent transmissions and researcher exposures:   * Block pathways and place cues on the floor to indicate acceptable distances for workers * Cover porous surfaces (fabric chairs) with nonporous and disposable materials (e.g., plastic covers) * Ensure general lab and room ventilation works appropriately; if possible, increase air changes per hour in all workspaces * Segregate workspaces   Create and implement new work practices to reduce transmission:   * Create shifts (AM/PM) or altered schedules (alternating days, weeks, etc.) * [Disinfect all surfaces](https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html) at least daily; high traffic areas can be cleaned more regularly * Modify work tasks to increase distancing * Wash hands frequently, following CDC guidelines   Use personal protective equipment as a last defense: face masks, face shields, and/or respirators are the primary controls   * CDC guidelines for facemasks should be strictly adhered to * Masks should not interfere with other PPE, like safety goggles or face shields   Field researchers should minimize the number of passengers per vehicles, disinfect equipment before and after use, and maintain social distance as much as possible. Limited and pre-approved travel is acceptable.   * Contact RLSS to help assess the best strategies for maintaining health and compliance for their research. |
| **6** | **Vaccine widely available and used in combination with widespread testing and identification of new COVID-19 cases, with quarantining/isolation**  **Exposure Alert Program**, contact tracing and quarantine of contacts continue  **No or minimal state restrictions** | **All types of on-site research are allowed**  On site research activity normal at **85-100%** | Restart normal research operations, including open museums and libraries, field research, and human subjects research | Continue to follow the latest CDC guidance on minimizing potential spread. Encourage vaccination and maintain safe work practices to reduce potential disease transmission. |

Attachment: Draft Resuming Research Checklist (labs)