

## Resumption of Research Activity Guidance

Hello Researchers,

Congratulations on being able to pursue your research and good luck! We are happy to provide some starting guidance for what startup operations are required and what the COVID-19 related portions of a lab's SOPs might include. This supplements the Office of Research & innovation information on distancing in labs.

If you are conducting human subject research, follow the guidelines on the [OR&I webpage for human subject research](#).

Please confirm you can meet all requirements listed here.

### **Planning Checklist**

Familiarize yourself with current [COVID-19 return to work procedures](#) to promote a safe laboratory and research environment for your returning personnel as well as those continuing to telecommute to promote social distancing.

<b>Item</b>	<b>Complete</b>	<b>N/A</b>	<b>Notes</b>
Review and become familiar with the following COVID-19 return to work procedures and resources: <ul style="list-style-type: none"> <li>• <a href="#">COVID-19 resources for supervisors</a></li> <li>• <a href="#">OR&amp;I information</a></li> </ul>			
Prepare list of permissible Laboratory and Research Activities. <ul style="list-style-type: none"> <li>• What must be done onsite or in-person?</li> <li>• What can be done via telecommute?</li> </ul>			
<b>Ramp Down Preparedness</b>			
Anticipate that you may need to quickly ramp research back down if local conditions change. <ul style="list-style-type: none"> <li>• Develop a ramp-down plan.</li> <li>• Consider delaying more complicated processes to ramp down operations for first few weeks to assess potential for COVID-19 resurgence.</li> </ul>			
<b>Identify the following for Research Activities that must be conducted onsite</b>			
<b>Places / Space Considerations</b> <ul style="list-style-type: none"> <li>• Where do these activities occur?</li> <li>• Is this a singular location or does the work require multiple locations and workstations?</li> </ul>			
<b>People</b> <ul style="list-style-type: none"> <li>• What is the minimum number of people required to support in-person operations at any one time?</li> </ul>			

Item	Complete	N/A	Notes
<b>Equipment and Operational</b> <ul style="list-style-type: none"> <li>• What are the critical in-person operations?</li> <li>• What equipment is required? Are these single-user or shared?</li> <li>• What critical supplies are needed to support operations?</li> <li>• Are there vendors and supply chain issues that need to be re-activated?</li> </ul>			

### **Preparation Checklist**

Evaluate the intended in-person activities and prepare strategies to promote worker safety.

Item	Complete	N/A	Notes
<b>Places/Space Considerations</b>			
<b>Offices</b> <ul style="list-style-type: none"> <li>• Telecommuting should be continued for office functions not requiring direct access to in-person work activities.</li> <li>• Continue to avoid performing non-lab activities (e.g., computer work, data analysis, etc.) in the lab, especially if there are ongoing lab activities.</li> <li>• Identify strategy to reconfigure shared offices or stagger shifts to align with social distancing principles.</li> </ul>			
<b>Laboratory and Other Work Areas</b> Identify strategy to reconfigure work areas to align with social distancing principles: <ol style="list-style-type: none"> <li>Maintain minimum 6 feet of physical distancing.</li> <li>Avoid using both sides of shared benches (e.g., minimize face-to-face)</li> <li>Combination of space reconfiguration and/or staggering shifts may be required to maintain social distancing.</li> </ol>			
<b>Common Areas and Break Rooms</b> <ul style="list-style-type: none"> <li>• Identify strategy to reconfigure break rooms to align with social distancing principles.</li> <li>• Encourage people to find alternative areas for breaks and not allow them to gather in common areas as much as possible.</li> </ul>			

Item	Complete	N/A	Notes
<p><b>Meeting Rooms</b></p> <ul style="list-style-type: none"> <li>• Meetings should be done virtually.</li> <li>• One-on-one meetings are permitted while maintaining social distancing, should they be needed.</li> </ul>			
<b>People</b>			
<p><b>Staffing Assignments</b></p> <ul style="list-style-type: none"> <li>• Identify personnel needed to help set-up space prior to larger workforce return.</li> <li>• Identify workforce with in-person operational expectations and confirm activities acceptable to continue to telecommute.</li> <li>• Identify personnel who should continue to primarily telecommute (e.g., at-risk, immunocompromised individuals).</li> <li>• Create a tracking log to log personnel on campus, time worked, locations visited, and other individuals encountered.</li> </ul>			
<p><b>Social Distancing</b></p> <ul style="list-style-type: none"> <li>• How many people should work in an area per shift and maintain 6 feet social distancing?</li> <li>• Determine need to stagger shifts.</li> <li>• Determine need to stagger break periods.</li> </ul>			
<p><b>Working Alone</b></p> <p>Consider the following criteria for working alone when assessing personnel levels:</p> <ul style="list-style-type: none"> <li>• What work can safely be conducted alone?</li> <li>• What must be postponed due to a high risk of injury or other incidents?</li> <li>• When can we use the Buddy System (<a href="#">LSM Section A4.5</a>)?</li> </ul>			
<p><b>Training</b></p> <ul style="list-style-type: none"> <li>• Complete COVID-19 Awareness training</li> <li>• Complete other EHS training courses as needed.</li> </ul>			<p>Email <a href="mailto:ehs.safety.training@ttu.edu">ehs.safety.training@ttu.edu</a> for assistance checking training</p>

Item	Complete	N/A	Notes
<p><b>Contact Lists</b></p> <ul style="list-style-type: none"> <li>• Review or create contact list for all lab personnel, PIs, DSOs, and EHS. Include campus police and maintenance (review EHS door sign).</li> <li>• Ensure the contact list is saved where it can be remotely accessed by everyone in the lab. Include home and cell phone numbers.</li> </ul>			<p>Submit updated door sign requests to <a href="mailto:ehs.lab.safety@ttu.edu">ehs.lab.safety@ttu.edu</a>.</p>
<p><b>Roster</b></p> <p>Update your personnel roster on <a href="#">Raider RAMP</a> to view training records for all personnel easily. Access the <a href="#">RRAMP User Guide</a> for assistance in adding your personnel.</p>			
<b>Equipment and Operational Procedures</b>			
<ul style="list-style-type: none"> <li>• Prepare for supply chain disruptions and limited availability of materials.</li> <li>• Recognize that order placement may be slower as the volume of requests increases.</li> <li>• Plan for limited sales of high demand items.</li> <li>• Plan for limited PPE availability (N95s, face shields, and gloves).</li> <li>• Plan for some reagents and consumables having limited availability.</li> </ul>			
<p><b>Equipment</b></p> <ul style="list-style-type: none"> <li>• Discourage sharing of tools and equipment as much as possible.</li> <li>• Stagger shifts for high use shared equipment.</li> <li>• Establish disinfection protocols between uses.</li> </ul>			
<p><b>Vehicles</b></p> <p>Require only one person per vehicle as much as possible.</p>			
<p><b>Vendors / Supply Chain</b></p> <ul style="list-style-type: none"> <li>• Confirm vendors and supply chain availability needed to initiate work activities.</li> <li>• Confirm loading dock operations are available before ordering materials.</li> </ul>			

Item	Complete	N/A	Notes
<p><b>Pandemic Supplies:</b> Available through <a href="#">TechBuy</a> and Central Receiving.</p> <ul style="list-style-type: none"> <li>• Cloth Masks</li> <li>• Disinfectants: Work units need to provide disinfectants for laboratory spaces and equipment.</li> <li>• Hand sanitizer: Provide hand sanitizer if activities are in areas without access to sinks for hand washing.</li> <li>• Hand soap and paper towels.</li> </ul>			
<p><b>Shared Facility Access:</b> Review any shared facilities for any use restrictions.</p> <ul style="list-style-type: none"> <li>• May have restricted schedules to accommodate social distancing.</li> <li>• A schedule or sign-up sheet may help coordinate use of shared facilities.</li> <li>• Procedure for disinfecting between users.</li> </ul>			
<b>Protocol &amp; Safety Considerations</b>			
<p><b>Review/update WASP and SOPs</b></p> <ul style="list-style-type: none"> <li>• Confirm WASP is current for lab operations.</li> <li>• Incorporate social distancing or increased PPE requirements where appropriate.</li> <li>• Instruct personnel on changes.</li> </ul>			
<p><b>Laboratory Safety Survey:</b> Review the last Laboratory Safety Survey completed for your laboratory to assess any past safety concerns prior to return to the work are (access through <a href="#">Raider RAMP</a>).</p>			
<p><b>IBC Protocols:</b> Review current biological safety protocols and confirm no changes to anticipated research upon research ramp-up.</p>			
<p><b>IRLSC Protocols:</b> Review current radiation and laser safety protocols and confirm no changes to anticipated research upon research ramp-up.</p>			
<p><b>Emergency Plans:</b> Ensure appropriate emergency response plans and contact information are in place.</p>			

## Pre-Work Checklist

Prior to beginning active work in the work area(s), ensure the safety and functionality of the space(s).

Item	Complete	N/A	Notes
<b>People</b>			
<b>Personnel Assignments</b> <ul style="list-style-type: none"> <li>Confirm only Approved Personnel are supporting <b>set-up</b> of the workspace.</li> <li>Confirm personnel have required PPE to return to work.</li> </ul>			
<b>Tracking</b> Inform personnel of location of tracking log to complete prior to leaving campus. Should an individual become sick, follow the <a href="#">procedures outlined by OR&amp;I</a>			
<b>Entering the Work Area(s) for the First Time</b>			
<b>Mental Hazard Assessment:</b> Before you walk in, do a mental hazard assessment for potential: <ul style="list-style-type: none"> <li>Hidden hazards of your lab.</li> <li>Location of compressed gases, vapor-producing, or high hazard chemicals.</li> <li>Location of satellite accumulation areas (waste storage).</li> <li>Think through how you would detect any problems and how to react before you enter the room.</li> </ul>			
<b>Survey for Unsafe Conditions</b> Complete a visual inspection looking for any evidence of problems in all work areas: <ul style="list-style-type: none"> <li>Chemical or biological leaks, spills or releases</li> <li>Confirm there are no equipment leaks (e.g., vacuum pumps) or malfunctioning freezers, refrigerators, etc.</li> </ul>			
<b>Hazardous Condition Response:</b> If you discover a hazardous condition that poses a threat to you or others, such as a hazardous material release: <ul style="list-style-type: none"> <li>isolate the hazard,</li> <li>notify occupants in the area,</li> <li>evacuate the laboratory and close the door,</li> <li>exit the building if required, and</li> <li>notify EHS at 806-742-3876 to report the situation.</li> </ul>			

Item	Complete	N/A	Notes
<p><b>Reactive and Peroxide-forming Chemical Check:</b> Assess reactive and peroxide forming chemicals that may have become unstable during the shutdown.</p> <ul style="list-style-type: none"> <li>• Look for chemical containers that are bulging, indented, cracked, have crystals formed around the cap, or are otherwise compromised.</li> <li>• Contact EHS immediately if unstable reactive or peroxide forming chemicals are found.</li> </ul>			
<p><b>Clean Up the Work Area</b> Cleanup/put away chemicals, supplies, equipment, glassware, or other items left out during the shutdown.</p>			
<b>Safety Checks</b>			
<p><b>Emergency Equipment</b> Confirm that emergency response equipment (safety showers, eyewashes and chemical or biological spill kits) are present and functioning.</p> <ul style="list-style-type: none"> <li>• Flush eye wash for 3-5 minutes to remove sediment and stagnant water and document on weekly inspection sheet.</li> </ul> <p>Report problems to your facility coordinator, department safety officer, or campus Maintenance department.</p>			<p>Request a chemical spill kit from <a href="mailto:ehs.lab.safety@ttu.edu">ehs.lab.safety@ttu.edu</a>.</p>
<p><b>Waste Management</b></p> <ul style="list-style-type: none"> <li>• Secure, correctly label, and store any chemical waste and <a href="#">submit for chemical pickup</a>.</li> <li>• Secure any medical/biological wastes and <a href="#">submit for biological pickup</a>.</li> <li>• Secure and label any radioactive waste and <a href="#">submit for radiation pickup</a>.</li> </ul> <p><b><i>Hazardous waste pickups may be delayed due to increased demand.</i></b></p>			
<p><b>Check equipment</b> that may have been affected by a power disruption.</p> <ul style="list-style-type: none"> <li>• Keep refrigerator and freezer doors closed until temperature levels return to normal.</li> <li>• Check for leaks that may have occurred.</li> <li>• Review equipment manuals for safe startup instructions.</li> </ul>			

Item	Complete	N/A	Notes
<p><b>Check Utilities</b> are in operation, including plumbed DI water, house natural gas, electrical outlets, ventilation, and compressed air or vacuum lines.</p>			
<p><b>Check Dewars and cryogen containers</b> for sample storage and liquid nitrogen levels.</p>			
<p><b>Check chemical fume hoods and biosafety cabinets</b> are operating as normal and inspected within the past year prior to resuming use.</p> <ul style="list-style-type: none"> <li>• If your fume hood is overdue for inspection, contact EHS.</li> <li>• If your biosafety cabinet is overdue for inspection, contact the <a href="#">inspecting company</a>.</li> </ul>			
<b>Workspace Planning &amp; Reconfiguration</b>			
<p><b>De-Clutter and Discard Unwanted Material</b> where possible to facilitate the ease of cleaning and disinfection of the research spaces.</p>			
<p><b>Offices</b> Implement previously identified strategy to reconfigure shared offices or stagger shifts to align with social distancing principles.</p>			
<p><b>Laboratory and Other Work areas</b></p> <ul style="list-style-type: none"> <li>• Implement previously identified strategy to reconfigure work areas to align with social distancing principles.</li> <li>• Avoid using both sides of shared benches (e.g., minimize face-to-face).</li> <li>• Re-locate workstations and shared equipment as appropriate.</li> </ul>			
<p><b>Common Areas and Break Rooms</b></p> <ul style="list-style-type: none"> <li>• Implement previously identified strategy to reconfigure spaces to align with social distancing principles.</li> <li>• Remove excess chairs and reconfigure seating as appropriate.</li> </ul>			



## Initiating Work on Campus

Once the “Pre-Work” phase work activities from the Work Unit have been completed AND the building services have been restored by Building Maintenance & Construction – Physical Plant, Approved Personnel may return to work.

Item	Complete	N/A	Notes
<b>People</b>			
<b>Personnel Assignments:</b> Confirm only Approved Personnel are returning to work.			
<b>Normal PPE Supplies:</b> Assess stock of PPE needed for research operations prior to COVID-19 and submit material requests through TechBuy.			
<b>Pandemic-related Supplies:</b> Obtain and distribute supplies to workers returning to campus. <ul style="list-style-type: none"> <li>• Cloth Masks: optional.</li> <li>• Disinfectants</li> <li>• Hand sanitizer: Provide hand sanitizer if work activities are in areas without access to sinks for hand washing.</li> </ul>			
<b>Supervisor Training</b> – Hold meetings with supervisors coming on duty with focus on the following: <ul style="list-style-type: none"> <li>• Mandating social distancing protocols.</li> <li>• Enforce the use of masks as per university protocol.</li> <li>• Clean common areas that are shared.</li> </ul>			
<b>Employee Training</b> <ul style="list-style-type: none"> <li>• Ensure personnel have completed COVID-19 Awareness training.</li> <li>• Ensure personnel have completed EHS safety training.</li> <li>• Re-train personnel on research-specific operations and methodologies that may have regressed during time away.</li> </ul>			
<b>COVID-19 Plan Implementation</b>			
<b>COVID-19 Resources:</b> Review the following COVID-19 return to work procedures and resources with personnel: <ul style="list-style-type: none"> <li>• <a href="#">OR&amp;I Guidance</a></li> </ul>			
<b>Cloth Mask and PPE:</b> Distribute and review the cloth mask expectations with personnel as well as other PPE requirements as part of normal operations.			

Item	Complete	N/A	Notes
<b>Social Distancing:</b> Review the plan to maintain social distancing with personnel. Stagger shifts and break periods. Review space re-configuring plans and expectations for offices, work areas, break rooms, and meeting areas.			
<b>Avoid Working Alone:</b> Review the working alone criteria and expectations with personnel.			
<b>Work Unit Disinfection Plan:</b> Review the laboratory cleaning protocol and schedule to disinfect high touch surfaces and shared equipment with personnel.			

### **COVID-19 SOP Guidance**

This is a guidance document to aid you with your SOPs for approval to proceed. Please proceed with the guidance language below as a *start* and integrate it into your lab and research SOPs *editing, improving, and making it specific to your operations.*

What we will need are COVID-19 related specific steps (to accompany the research SOPs) on exactly how these measures will be implemented. Examples include:

- How many researchers are involved and how will they maintain separation?
  - By physical distance?
  - By time in the lab?
  - By operations being performed?
  - If working alone, be sure that all individuals have documented training on the Work Area Safety Plan and applicable SOPs and the laboratory has developed a Buddy System following the guidelines in the [Lab Safety Manual](#), Section A4.5.
- What surfaces and how often will surfaces be disinfected?
  - Handles, knobs, etc.?
  - Instruments, etc.?
  - Bench tops, etc.?
- How frequently or when will they wash their hands?
- What specific supplies will be provided to maintain safety and their storage location: e.g., face coverings, soap, hand sanitizer, cleaning materials, first aid kits.
- How will a process be provided to maintain access and activity logs to be able to trace contacts should someone become sick or test positive for COVID-19? [*For instance, this could be a posting on the lab door, or an excel spreadsheet that includes: researcher name, date and time work was started and ended, and all room locations in the building*]

*that were visited during that time. Additionally, names of any other individuals that the researcher interacted with could be included.]*

- Etc.

These procedures could be written in a couple of ways:

- Integrate it into the other SOP(s) for the research, lab work, etc.
- Draft it separately as a stand-alone document

Either are both fine, of course. Here is some *sample language* merely to illustrate it:

**Lab operation 1:** Can be done at two stations that are ~10 feet apart. We will disinfect the benchtop using a fresh 10% bleach in water solution. We will each wash our hands directly after this.

**Lab operation 2:** Can be done by one person. The other will remain in contact via Zoom from their office. The same disinfection and washing will occur.

**Lab operation 3:** Typically requires two persons. We will wear face coverings (e.g., cloth face coverings surgical masks, and/or N95s), face shields, and double glove. We will help each other avoid touching our faces. As soon as we can, we will separate, disinfect surfaces, and wash our hands.

We hope that this makes sense. The simpler, more specific, and to the point you make it, the easier it will be to implement. Once you have a draft, please feel free to send it to [safety@ttu.edu](mailto:safety@ttu.edu) for review.

Please let us know if you have any questions, wish to chat, or how we can help.