Advanced Operational Guidelines to Improve Lab Research Safety for Fall 2020

Our overall goal for Kennesaw State University (KSU) research is for all faculty, staff, students, and non-KSU human participants to be safe and healthy, while continuing to increase our research activity and productivity as outlined by the KSU R2 Roadmap. This guidance focuses on managing access to research spaces on both the Kennesaw and Marietta campuses. These spaces include science (wet) and engineering (dry) research laboratories, shared facilities for scientific equipment, and computational facilities. Separate guidance is available for labs associated with human research (i.e., in-person) and field-based research, at the Office of Research website (https://research.kennesaw.edu/coronavirus/).

Research Personnel Included:

- Beginning August 10, research faculty and staff may return to all research activities on campus as permitted by the Workplace and Health Safety guidelines set forth by the USG, and following hygiene and distancing procedures detailed below.
- Health and Safety Standard Operating Procedures (SOPs) and Professional Ethics forms must be submitted to the Associate/Assistant Dean for Research (ADR) before research on campus may resume. See Attachments A and B.
- Graduate and undergraduate students may resume on-campus academic/research activities as permitted by the Workplace and Health Safety guidelines set forth by the USG, and following hygiene and distancing procedures detailed below, and with permission and supervision from their faculty advisor.

Required Social Distancing Conditions for all Research Spaces:

- All efforts must be taken to adhere to best practices for preventing spread of COVID-19, as set forth by the CDC, the GA Department of Public Health, and the Workplace and Health Safety guidelines set forth by the USG for the initial return of faculty and staff to campuses.
- Wear a face mask at all times while in ALL shared research space (labs/studios/facilities).
- Other standard lab attire and Personal Protective Equipment (PPE) should be worn in research labs as required by lab safety protocols already in place.
- No sharing of PPE allowed.
- Keep a **minimum 6-feet (2 meters)** distance between you and ANY colleague.
- Keep **a maximum of two (2)** people per wet lab bench, or studio surface in situations where minimum safe distancing can still be applied. In situations where physical space prevents safe distancing, alternative measures must be considered such as staggered work shifts, staggered work rotations or extended hours of operation to accommodate staff.
- Encourage research personnel to take personal responsibility for monitoring personal temperature every morning per CDC guidelines, **and DO NOT come to campus with a 100.4°F (38°C)** or above temperature or the following conditions:
    - Symptoms such as cough, shortness of breath, difficulty breathing, chills, muscle pain, headache, sore throat, new loss of taste or smell.
    - A household member who has been diagnosed with COVID-19 or has demonstrated COVID-19 symptoms within the last 14 days.

- Close contact (within 6 feet for 10 or more minutes) with anyone outside your home who has a confirmed COVID-19 diagnosis or COVID-19 symptoms within the last 14 days.

- Implement and maintain enhanced standard laboratory safety measures to assure safe operations in a reduced staff environment.
- Ensure that proper cleaning/disinfection safeguards are conducted for shared research/studio equipment.
- Wash hands with soap and water for 20 seconds, rinse, and dry hands with paper towels after using shared equipment and before leaving the lab.
- To maintain appropriate physical distance, develop a schedule for shared facilities/equipment/studios, such as fume hoods and biosafety cabinets, procedure rooms, and instruments.
- Implement a staff rotation that maintains a restricted use of the research space to a limited number of individuals at any given time. Rotation should be done to allow for graduate students to have equal and fair access to research space/studio/equipment.
- Undergraduates may be added to the rotation schedule, but a phased approach is recommended, with graduate students being brought into research first. If this is successful, then undergraduate researchers can be phased in gradually. Priority should be given to undergraduate students as follows:
  - Undergraduates cannot be forced to work in laboratories and should not be academically penalized if they do not have the same ability to access the lab due to COVID-19 circumstances (e.g., they are essential workers; they are under quarantine). Undergraduates should be added to the research group schedule when space and time are available after research staff, postdocs, and graduate students.
  - Priority should go to students who have research as part of their academic plan for their degree and are actively earning credit for their work.
  - Next, priority access should be given to those students who work for pay, due to the impact on personal financial situations.
  - Volunteer students may be allowed in the laboratories only if there is enough space and time for them in the research group's schedule.
  - As required for all work in lab spaces, undergraduate students need to undergo lab safety training before undertaking lab work. If new undergraduates are accepted into a lab, as for all other activities, mentors will need to install mechanisms to maintain social distances during lab safety training.
- Limit the number of personnel in the research space at any given time. Research personnel whose work does not require them to be in the research space should not come to the lab.
- Establish a buddy system for lab personnel, to make sure that no one is working alone in the lab without the knowledge of someone else. Virtual buddies can monitor the safety of other lab members via electronic means while not physically present in the lab.
- Limit non-KSU persons (public), including local high school students, from entering the facility, to ensure minimal occupancy of research spaces.

General Lab Reopening Procedures:

- Prior to ramping-up of research operations, perform pre-startup check to:
  - Ensure key lab safety equipment such as fume hoods, biosafety cabinets, and others are operating normally.

- Confirm adequate PPE is available for near-term research needs.
- Confirm adequate supply of cleaning and disinfecting supplies.
- Check for integrity of chemical containers. Contact EHS to request pick-up of expired chemicals or damaged containers.
- Check for leaks or unusual physical conditions in the lab that need to be addressed. Contact Facilities if an issue is identified.

- Run water from sinks and discard old ice in ice makers so that it is fresh from chlorine residue.
- Computers should be rebooted and updates applied as provided by UITS. No interruptions should occur during time of updating/rebooting. UITS should be contacted if stalls in rebooting/updating occur.
- Ensure appropriate contact information, including emergency contact information, is available.

<u>Attachment A:</u> Template for SOPs for Lab-based Research for Fall 2020

SAMPLE LABORATORY HYGIENE AND DISTANCING WORKSHEET

PI: _____

Lab Space(s): _____

1. **<u>PIs will calculate square footage available in their main lab space and keep the number of research staff (faculty, students, staff) concurrently in the space at or below 1 person per 120 square feet.</u>**
   A. For many lab spaces, the safe number of researchers may be fewer than 1 person per 120 square feet because of layout and necessity for other safety precautions (e.g., see #2B below). PIs will post the total safe occupancy of their laboratory space, and will use signup mechanisms, shifts, etc. to ensure that the occupancy is not exceeded.

   Number of personnel allowed at any given time in main lab space: _____

2. **<u>Safety precautions while working</u>**
   A. Researchers will wear face masks in laboratories, and masks are highly recommended in all common areas including hallways, bathrooms, etc.
   B. Researchers will maintain 6 feet distance from all others for all tasks.
      i. To aid in this, establish electronic signups for all shared instruments.
      ii. Occupancy at instruments should be strictly limited to one researcher at a time.
      iii. Researchers should not be directly across from each other at lab benches.
      iv. Whenever possible, staff who need help with procedures will share images, screenshots, or similar to get the help they need. When close proximity for giving help is unavoidable, staff will limit the time in proximity to the absolute minimum necessary.
      v. It is not feasible to have signups for many high contact areas. If you arrive at one of these areas and it is occupied, you must either wait outside the room or maintain >6 feet distance from the other occupants while waiting for access.
      vi. Some shared instruments are in spaces assigned to PIs. Special arrangements including instrument signups will be made to ensure that researchers using these instruments can maintain a safe distance and not exceed total occupancy of the lab space determined in #1 above.
   C. Except where clearly indicated, researchers will disinfect surfaces that are touched – bench tops, lab carts and handles, computer keyboards and computer mice, instrument control surfaces, refrigerator handles, etc. – with appropriate disinfecting materials, depending on the touch surface, both before and after use of the instrument or work surface.

i. Disinfecting materials will be kept available in all common areas. If for some reason disinfecting materials are not available, it is still the staff's responsibility to find some and perform the disinfection.
ii. Some instrument touch points have specific requirements for disinfectants that should, or in some cases should not, be used; for example, ammonia-based wipes will destroy touch screens. Some instruments should not be disinfected with any liquid whatsoever. Proper disinfection materials and/or procedures for each instrument will be clearly posted

List equipment and disinfection procedures:

Equipment/Area	**Disinfection Instructions**

D. Researchers should not share safety equipment, including safety glasses.
E. Researchers will wash hands with soap for at least 20 seconds after leaving the lab for breaks, or for the day.
F. Researchers should avoid working alone. Ideally at least one other person should be in the lab area; when that is impossible, at least one other person should be on the same floor of the building. Signups will be instituted so that researchers will know who else is working.

3. **Safety precautions while taking breaks/eating**
A. The safest place to take a break, eat, and/or drink, is outside; whenever possible, staff will take breaks and/or eat outside. Staff will maintain >6 feet distance outside.
B. If weather does not permit being outside, staff will maintain >6 feet distance from other researchers while resting and/or eating.
C. If eating inside, researchers will sanitize tables and chairs at their eating place with cleansing wipes or 70% ethanol before and after eating.

List of spaces for meals and breaks:

4. **All research team members will use the 'see something, say something' rule** – if you see someone not following the safety procedures outlined here, it is your responsibility to speak up, either directly to the offenders or to a PI.

5. **Research team members must be alert to their own health, and by agreeing to work in campus laboratories they agree:**
   A. to immediately seek medical attention if they experience symptoms of COVID-19 (Use the CDC Coronavirus Self-Checker (https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html).
   B. to immediately report such symptoms, date of onset, and any diagnosis to an applicable supervisor, who must immediately report this result to Department of Environmental Health and Safety (EHS) https://ehs.kennesaw.edu/index.php.
   C. not to come to campus while experiencing symptoms or, if diagnosed with COVID-19.

Lab Personnel List (includes all persons who enter the lab during research activities):

Name	**Regular assigned time(s), if applicable**	**Contact Information (email; cell)**

Please return completed agreement to the ADR in your College

Attachment B: DRAFT Template for Professional Ethics Form for Lab-Based Research for Fall 2020

Return to Research Commitment to Public Health Practices

Name_____

To minimize the risk to public health while performing research at Kennesaw State University, students, staff and faculty are expected to adhere to public health practices to minimize the spread of COVID-19.

By signing this form you agree to adhere to the behaviors and expectations below.

These have been discussed with you by

_____ *(Research Group Leader) on* _____ *(date)*

The Research Group Leader providing this agreement understands it is their responsibility, to the best of their ability, to promote and enforce these public health behaviors.

_____ I will limit my exposure to COVID-19 by maintaining social distancing guidelines professionally and personally.

_____ I will wear the appropriate personal protective equipment, including face masks, and practice proper handwashing techniques frequently.

_____ I agree to closely monitor my health and will not enter a university building or participate in face-to-face research activities if I develop or display symptoms of COVID-19 including but not limited to fever (temperature of 100.4°F or greater), tiredness, or dry cough.

_____ I agree to decontaminate high-touch surfaces at the beginning and end of my work as prescribed by the lab head.

_____ I agree to follow other Kennesaw State University guidelines for ethical research to protect the public health as necessary.

_____ I understand that failure to follow these expected behaviors would be detrimental to public health efforts and could impact my ability to perform research or other tasks at KSU.

_____ My Research Group Leader has provided to me a Research Operation Plan for minimizing impact of COVID-19 and I have read the Plan. I will comply with the policies and procedures established by the laboratory or research group and will comply with policies and procedures in other facilities used for my research.

Signing this commitment to public health practices means that you have read, understand, and respect the efforts described above.

_____ _____

Signature *Date*

Please return completed agreement to the Faculty PI / Research Group Leader/ADR