PLAN FOR PHASED RESUMPTION OF ON-CAMPUS RESEARCH

May 28, 2020

- Updated June 15, 2020
- Updated June 19, 2020
- Updated June 28, 2020
- Updated August 3, 2020
- Updated October 5, 2020
- Updated October 21, 2020
- Updated November 2, 2020
- Updated December 1, 2020
- Updated February 1, 2021
- Updated April 28, 2021
- Updated July 14, 2021
- Updated September 9, 2021
INTRODUCTION

In response to the COVID-19 pandemic, Princeton University halted all non-essential on-campus research activities on March 21, 2020. We took this difficult decision in order to protect the health and safety of the campus community, and in full awareness of the sacrifice made by faculty, graduate students, postdoctoral researchers and members of the research staff in delaying experiments or terminating those in progress.

It is now time to be ready to resume research safely, in an orderly fashion, and as promptly as circumstances permit. To this end, we have formulated this Plan for the Phased Resumption of On-Campus Research.

The plan describes four levels of on-campus research activities:

- **Level 1: Normal Operations**
- **Level 2: Phased Resumption (current level)**
- **Level 3: Essential Operations**
- **Level 4: Operations Suspended**

The proper time for implementing the phased resumption of on-campus research (Level 2) is determined by the University’s leadership, taking into account the relevant local, state, and national public health directives regarding stay-at-home and social distancing.

Our goal is to enable the smooth restart of Princeton’s extraordinary on-campus research enterprise, with the health and safety of the campus community as our paramount concern.

Principal Investigators (PIs) must formulate and submit a plan indicating how compliance with safety, hygiene and social distancing requirements will be implemented and adhered to, so as to establish a system of local responsibility in compliance with University-wide policies and public health guidance. Department chairs are asked to formulate and submit a building-level plan for the resumption of research activities. All plans must be approved by the Dean for Research.

Researchers who can work remotely are strongly encouraged to continue doing so. We must also be prepared for the possibility of suspending research operations in response to a widespread resurgence in infection.

We thank the many colleagues who have provided invaluable input into the formulation of this plan, which will be continuously updated as new information and guidance on COVID-19 and its treatment and prevention become available. It is our hope that this resource can help guide Princeton’s research community on the path to eventual resumption of normal research operations, in alignment with University policy and guidance, and relevant local, state, and national public health directives.
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1. GUIDING PRINCIPLES

1.1 Introduction

**Purpose.** The principles outlined below are intended to guide the planning and implementation of the phased resumption of on-campus research.

**Timing.** The proper time for implementing the phased resumption of on-campus research will be determined by the University’s leadership, taking into account the relevant local, state, and national public health directives regarding stay-at-home and social distancing.

**Uncoupling.** The phased resumption of on-campus research is not coupled to the resumption of on-campus undergraduate teaching and senior thesis work.

1.2 Principles

**Health and Safety.** Protect the health and safety of the campus community.

**Safe Working Conditions.** Provide researchers with appropriately safe working conditions, including lab space, in accordance with University policies and prevailing public health guidance and directives issued by national, state and local government authorities.

**Hygiene.** Implement, adhere to, and enforce best practices for social distancing, cleaning, use of personal protection equipment (PPE) and case reporting as essential to the safe and successful phased resumption of on-campus research.

**No Coercion.** Treat with utmost seriousness any supervisor’s or Principal Investigator’s failure to implement the health and safety measures required by the University, or coercion of an employee or graduate student to work under conditions inconsistent with those measures.

**Transparency.** Put in place transparent policies and processes that allow a phased resumption of on-campus research, and communicate with the research community prior to and during implementation.

**Flexibility and Agility.** Design plans that can be easily adapted to multiple scenarios, including different end-points for phased resumption, and the possibility of a widespread resurgence in infection requiring shutdown.

**Complexity.** Acknowledge the complexity of the research enterprise by consulting broadly in the formulation of resumption policies and procedures.

2. OPERATING PRINCIPLES

2.1 Staged Approach

The plan envisions four levels of on-campus research (see Section 3 for details).
Level 4: Operations Suspended. All experiments are stopped, except for COVID-19 research specifically approved by the Office of the Dean for Research. Only designated critical staff are granted access to buildings.

Level 3: Essential Operations. Only a limited number of essential research and COVID-19 projects is allowed. Authorized researchers can also access laboratories for maintenance operations. Access to laboratories requires authorization by the Office of the Dean for Research following submission of a Research Lab Operations Plan by the Principal Investigator (PI).

Level 2: Phased Resumption (Current Level). Department chairs must submit a department-level Research Infrastructure Plan, which must be approved by the Office of the Dean for Research. PIs who lead laboratory research groups must submit a Research Lab Operations Plan detailing how each lab will enact strict social distancing and comply with Environmental Health and Safety (EHS)-prescribed density and hygiene metrics and practices. PIs who lead theory or computational groups must submit Research Non-lab Operations Plans that specify how group members’ work spaces will be arranged to maintain social distancing and proper room-occupancy levels. Use of PPE and cleaning protocols are strictly enforced. All work that can be done remotely is strongly encouraged to continue to be done remotely. Changes in University-wide requirements (e.g., area per researcher) can result in adjustments to department-level or laboratory-level plans.

Level 1: Normal Operations. Normal research operations resume within prescribed hygiene, health and safety protocols.

2.2 Departmental Responsibilities

Department chairs and institute directors, working closely with academic managers and, where applicable, building managers (e.g., Engineering Quadrangle) must submit to the Office of the Dean for Research a plan for resumption of research activities (Research Infrastructure Plan). The plan must include identification of critical dependencies (e.g., utilities, loading docks, procurement), a plan for re-opening core facilities, a plan for enforcing social distancing, and best practices for cleaning common areas, PPE use, and circulation patterns in common areas. Research Infrastructure Plans must be approved by the Office of the Dean for Research.

2.3 PI-driven Approach, with Supervision

The University will issue campus-wide metrics that must be strictly adhered to (e.g., minimum area per researcher), initiating the transition from Level 3 to Level 2. PIs and facility directors must submit a Research Lab Operations Plan or Research Non-lab Operations Plan indicating how compliance with these metrics will be implemented, how social distancing will be strictly enacted, how proper room-occupancy levels will be maintained, and how hygiene practices (PPE, cleaning) will be followed and enforced. Department chairs and institute directors must review and approve PI plans prior to submitting to the Office of the Dean for Research for final review and approval.

3. LEVELS OF ON-CAMPUS RESEARCH
Level 4: Operations Suspended

- Research Lab Operations Plans, including critical monitoring and maintenance, are reviewed and approved by the Office of the Dean for Research.
- All experiments are stopped, except for COVID-19 research specifically approved by the Office of the Dean for Research.
- Key resource maintenance is allowed only for irreplaceable animals (e.g., transgenic mice, zebrafish, Drosophila), cell lines that cannot be cryopreserved, and equipment that cannot be shut down. Activities must be approved by the Office of the Dean for Research.
- Vertebrate animal management is allowed only by Laboratory Animal Resources (LAR), with access to animal facilities by research personnel as required and with the express approval of LAR.
- At most, one person per lab is allowed on campus at any given time for critical maintenance functions only, and these functions must not include activities that fall under “hazardous operations.”
- All personnel must adhere to hygiene, health and safety protocols as prescribed by EHS.
- Undergraduate students are not allowed in the lab.
- Only designated critical staff are granted building access.
- Remote work is required for all activities not specifically listed above.

Level 3: Essential Operations

- PIs must submit Research Lab Operations Plans detailing shutdown plans and/or requesting maintenance and/or essential research activities. Plans must be reviewed by the department chair or institute director and approved by the Office of the Dean for Research.
- Essential and COVID-19-related research must be approved by the Office of the Dean for Research.
- Maintenance of key resources — such as animals, cell lines, liquid N₂, sensitive equipment, etc. — must be approved by the Office of the Dean for Research.
- In labs approved for critical maintenance, essential research, or COVID-19 work, one to three lab members (including the PI) must be identified in the plan and approved for building access. Any additional personnel needed for hazardous operations or critical maintenance requires approval by the Office of the Dean for Research.
- Approved on-campus research commences only with acknowledgment from relevant department(s) confirming any required services/facilities are in operation or can be brought online.
- All personnel must adhere to hygiene, health and safety protocols as prescribed by EHS.
- Undergraduate students are not allowed in the lab.
- All research buildings are set to card access “weekend” schedule.
- Remote work is required for non-laboratory activities.
Level 2: Phased Resumption (Current Level)

- Department chairs and institute directors, working closely with academic managers and, where applicable, building managers (e.g., Engineering Quadrangle) must submit a Research Infrastructure Plan for resumption of research activities. This plan must include identification of critical dependencies (e.g., utilities, loading docks, procurement), a plan for re-opening core facilities, a plan for enforcing social distancing, and best practices for cleaning common areas, PPE use, and circulation patterns in common areas. Research Infrastructure Plans must be approved by the Office of the Dean for Research.

- PIs must submit Research Lab Operations Plans or Research Non-lab Operations Plans detailing how research groups will comply with EHS-prescribed campus metrics, enact social distancing, and enforce hygiene practices (PPE, cleaning). Plans must be reviewed by the department chair or institute director and approved by the Office of the Dean for Research.

- Experimental work resumes within the parameters reviewed and approved by the chair and the Office of the Dean for Research.

- Research that utilizes core facilities or services commences after consultation with the facility director (e.g., LAR for animal research, Clean Room).

- All personnel must adhere to hygiene, health and safety protocols, including protective equipment, established by EHS to ensure safety of all personnel.

- Undergraduate students are not allowed in laboratories, except students explicitly authorized to conduct or participate in research, until further notification by the University.

- Remote work is strongly encouraged whenever possible for non-laboratory activities.

Level 1: Normal Operations

- Normal research operations.

- All personnel adhere to hygiene and health and safety protocols as prescribed by EHS.

- Undergraduates are allowed in laboratories.

4. SAFE WORKING CONDITIONS AND NO COERCION

4.1 Working Remotely

A key tenet of the phased resumption of research plan is that members of our campus community will not be required to return to campus (and in some cases will not be permitted to return to campus) if the PI and/or senior University officials determine that such research can and should be accomplished remotely.

4.2 Faculty or Staff Performing Research on Campus

Upon providing appropriately safe working conditions in accordance with University policies and prevailing guidance issued by public health authorities, the University will expect all faculty and staff approved to perform research in our labs to report to campus. Faculty and staff approved
to perform theory or computational work on campus may do so but are strongly encouraged to work remotely if possible. Individuals who have a medical condition or other risk factor that they believe would make their return to campus unsafe are encouraged to request an accommodation (see Section 5.12).

4.3 Graduate Students Performing Research on Campus

It is anticipated that the vast majority of graduate students will be eager to resume “hands on” laboratory research. Graduate students approved to perform theory or computational work on campus may do so but are strongly encouraged to work remotely if possible. Graduate students with a medical condition or other risk factor that they believe would make their return to campus unsafe are encouraged to request an accommodation (see Section 5.12).

In addition, any graduate student who has particular problems related to the return to on-campus research should submit the information to the relevant Director of Graduate Studies. The University will seek to honor students’ requests to the extent they are reasonable and appropriate, though such decisions will need to take into account relevant collateral implications, including impact on progress toward degree and funding.

Issues with non-compliance with social distancing, hygiene, or safety practices also can be reported confidentially via the EthicsPoint hotline.

5. GUIDELINES FOR SAFE RESEARCH DURING COVID-19 PANDEMIC

5.1 General Guidelines

- As of July 4, 2021, face coverings and social distancing are not required in Princeton University buildings or outdoor spaces. Individuals who are not fully vaccinated are encouraged to continue to wear face coverings indoors, especially when around other people. The University encourages a culture of non-judgment and no assumptions regarding mask-wearing.
- All researchers who routinely come to campus or who live in campus housing must participate in the asymptomatic testing program.
- Every researcher (faculty, graduate student, postdoctoral researcher) who is not fully vaccinated is required to complete a Daily Symptom Check before coming to work on campus or before entering any University building other than their campus residence, and may not come to campus if advised to stay home.
- Entering any University building with a TigerCard, represents an attestation that the individual is symptom-free.
- DO NOT come to campus if you are sick or experiencing any of the symptoms associated with COVID-19.
- If you have been tested, confirmed to have COVID-19, or have been quarantined as a close contact of someone who is confirmed ill with COVID-19, you must email University Health Services at communityhealth@princeton.edu.
• If you begin experiencing symptoms associated with COVID-19 while at work, distance yourself from co-workers, notify your supervisor, and go home as soon as possible.
• Carry your TigerCard at all times. Exterior doors to the science and engineering buildings are configured to allow card access 24 hours a day.
• Frequently clean hands with soap and water. If you do not have immediate access to soap and water, use alcohol-based hand sanitizer with at least 60% alcohol. All laboratories are required to have handwashing supplies available, including soap and disposable paper towels.
• Avoid touching your eyes, nose, mouth or any part of your face.
• Practice good cough and sneeze etiquette. Cover your cough or sneeze with a tissue or your elbow.
• Routinely disinfect high touch points, facilities, work areas, personal electronics, and shared equipment and spaces using a disinfecting solution or wipes. Refer to the Environmental Protection Agency’s Disinfectants for Use Against SARS-CoV-2.

5.1.1 Personal Responsibilities When Conducting Research
• Check in with your PI, lab manager, or supervisor to determine whether you are permitted to conduct research on campus, which experiments or activities you may conduct, when to report to the laboratory or research office space, and what your responsibilities are.
• If you are not fully vaccinated and arriving from an international location, complete the COVID-19 Risk Assessment form, which will be reviewed by University Health Services, within 3 to 7 days prior to your expected return to campus, and wait for a response before coming to campus in any capacity. Risk assessments are not reviewed during non-business hours or on weekends, so please plan ahead.
  • University Health Services will determine whether your responses merit the need to quarantine, based on your travel history and potential exposure to a person with a confirmed or suspected case of COVID-19.
  • Individuals classified as low risk will be allowed to come to campus immediately.
  • Individuals classified as high risk will need to self-quarantine for up to fourteen days.
• Every researcher (faculty, graduate student, postdoctoral researcher) who is not fully vaccinated is required to complete a Daily Symptom Check before coming to work on campus or before entering any University building other than their campus residence, and may not come to campus if advised to stay home.

5.2 COVID-19 Case Management
• University Health Services (UHS) provides public health guidance and expectations for the University community. When appropriate, UHS informs individuals of the need for quarantine or isolation based on COVID-19 testing results, and acting on behalf of Princeton’s Department of Health, conducts contact tracing to determine close contacts from the campus community.
• All Princeton University employees and students who have been tested for COVID-19 outside of the University (regardless of the reason [e.g., prior to a medical procedure]), should notify UHS via email: communityhealth@princeton.edu. If appropriate, this notification may begin the contact tracing process.

• Community members tested through the asymptomatic testing program and students with symptoms tested at McCosh do not need to send a notification as this notification happens through internal processes at UHS. Contact tracing will follow asymptomatic testing only if the result is a positive test.

• **People who are not identified as close contacts by UHS staff do not need to self-quarantine.**

• Due to privacy laws, the University is not permitted to disclose the name of the person reporting that they were tested.

• Public health officials do not consider being in the same room (more than six feet away) or briefly passing, sharing an elevator, or working near an individual who may be contagious to be a high enough risk to require self-quarantine. We do recommend, however, even if you are not identified as a close contact, that you remain vigilant about wearing face coverings, maintaining physical distance from others, and engaging in frequent handwashing.

• University Health Services and EHS will work together to determine whether the space that a person testing positive has occupied requires specialized cleaning and will arrange for that cleaning.

### 5.3 Social Distancing
As of July 3, 2021, social distancing is no longer required. Labs and offices may resume full occupancy.

### 5.4 Face Coverings
• As of July 4, 2021, face coverings are not required in Princeton University buildings or outdoor spaces. Individuals who are not fully vaccinated are encouraged to continue to wear face coverings indoors, especially when around other people. The University encourages a culture of non-judgment and no assumptions regarding mask-wearing.

### 5.5 Laboratory Coats
• If working with human specimens or biological materials that require BSL 2 containment, wear the covering specified in your IBC approval, which may include using disposable lab coats or isolation gowns.
• Do not share lab coats.
• Cloth laboratory coats must be regularly laundered to minimize the risk of an exposure from contamination on the coat and to help mitigate the risk of the coat becoming a viral reservoir.
  • Due to the risk of the coat being contaminated with hazardous materials, the laboratory coat must be cleaned by a professional or dedicated laundering service at least weekly.
  • Laboratory coats may not be taken home for laundering or cleaned with a public laundering service or facility.
  • Contact your departmental administrator for additional information regarding the process for laundering laboratory coats.
• If cloth lab coats are worn by a researcher who is suspected or confirmed to have COVID-19, the coat should be placed inside a sealed bag, and held for 7 days prior to laundering. The bag containing the potentially contaminated laboratory coat should be labeled “COVID-19 quarantined laboratory coat” and the date when the coat can be removed for laundering.

5.6 Cleaning, Decontamination and Disinfection

All lab surfaces and equipment must be disinfected at least daily. This includes all surfaces within the biosafety cabinet, chemical fume hood, equipment, bench tops and other work surfaces, transport and transfer containers.

Faculty, researchers, staff and students are responsible for cleaning and disinfecting frequently touched surfaces within their work areas, such as computer keyboards, phones and desktops.

Building Services custodians will continue to clean bathrooms, hallways, common areas, etc. They will not clean your laboratory or office space unless there is a specific need and under controlled conditions. Contact EHS for more details.

5.6.1 Maintaining Laboratory Hygiene

Laboratory members are responsible for developing plans to promote good laboratory hygiene by regularly disinfecting common laboratory areas and touch points (e.g., doorknobs, sink handles, freezer doors, telephones) within the laboratory space.

Alcohol, hydrogen peroxide or sodium hypochlorite (household bleach) solutions can be effective when used as follows:
  • 62%-80% ethanol or isopropanol (70% recommended)
  • >0.5%-8% hydrogen peroxide
  • 0.1% - 0.525% sodium hypochlorite (bleach) and cold water solution (made fresh daily)
If you wish to use other disinfectants, please select from the EPA’s [Disinfectants for Use Against SARS-CoV-2](link is external) list. Care must be taken to follow the manufacturer’s disinfection directions, which may include pathogen-specific inactivation instructions.

**Never** use solutions containing formaldehyde or glutaraldehyde to disinfect laboratory surfaces. Both of these chemicals can cause severe acute and chronic health effects.

### 5.6.2 Best Practices for Disinfection

- Ensure that the area is cleaned prior to initiating the disinfection process where applicable. Excess gross contamination significantly decreases the activity of the disinfectant.

- The concentration of the disinfectant is critical to the efficacy of the disinfectant for inactivating the pathogen. Follow the manufacturer’s recommendations for dilution if purchasing a commercial disinfectant.

- No disinfectant works immediately. Disinfectants must be left on the surfaces or items to be decontaminated for a specified contact time, which may vary depending on the pathogen to be inactivated. Contact times of 1, 3, 5 or 10 minutes or even longer may be needed to ensure that any pathogen present has been inactivated. Apply disinfectant until surfaces are glistening wet and allow surface to air dry. If your disinfectant has a higher evaporation rate (e.g., alcohols), and a longer contact time is needed, you may need more than one application; however, the surface being disinfected should remain wet for the duration of the required contact time.

- Ensure that all surfaces are completely covered with the disinfectant. Merely spraying the disinfectant on a surface, especially if only applied quickly or lightly, can leave spaces in between the disinfectant drops.

### 5.6.3 Additional Chemical-specific Considerations for Using Disinfectants

- Most (if not all) chemical disinfectants designed for surface decontamination contain components that can be harmful if ingested, inhaled, or if skin/eye exposures occur.

- Appropriate personal protective equipment, including eye and hand protection, must be used when applying chemical disinfectants.
• Note: Be aware of any dermal or respiratory irritation that occurs after using disinfectants or after working on surfaces that have been disinfected. If dermal or respiratory irritation is encountered:
  • Exit the area, get to fresh air.
  • Try to flush the irritated area (for dermal irritation).
  • Seek additional medical assistance as needed.
  • Suspend the use of the suspected disinfectant and contact EHS for additional assistance.

5.7 Handling Laboratory Hazardous Waste

5.7.1 Regulated Medical Waste Disposal
• Follow the University’s regulated medical waste procedures, found here.
• Building Services custodians will remove properly packed and labeled boxes of regulated medical waste on a weekly basis.

5.7.2 Chemical Waste Disposal
• Follow the University’s guidelines on collecting and labeling laboratory chemical waste, found here.
• Laboratory chemical wastes will be collected directly from the laboratory based upon information provided on the Waste Pickup Request.
• During the suspension of regular laboratory operations, the frequency of waste pickups has been reduced from a weekly to bi-weekly schedule. After submitting the request, you will be notified of the anticipated pickup date and time.

5.8 Required Training [REMOVED]

5.9 Preparing the Laboratory and Office Workspaces
Before restarting work, check the physical condition, supply levels and readiness of the facilities. Ensure that equipment, such as biosafety cabinets, autoclaves, etc. are up to date on inspections and maintenance. Make arrangements for services as needed.
• See Information for University Contractors and Vendors before making arrangements for contractors or vendors to come onto campus.
• Inspect equipment and facilities for damage, leaks, etc.
• Check expiration dates on chemicals and supplies.
• Confirm availability of support services, such as gas delivery, dry ice, etc.
• Post signage that clearly indicates the maximum occupancy for the space, and reconfigure workstations if necessary.
• Adapt work schedules to ensure social distancing.
• Provide sanitizing supplies and instructions for researchers to wipe down their work surfaces and other frequently touched surfaces regularly.
• Review the Guidance on Ventilation Systems.
5.9.1 Obtaining Supplies
For the most current information, please go to the EHS page on Ordering Personal Protective Equipment and Supplies.

EHS can provide the following COVID-19 related supplies:
- Disposable face coverings
- 8 oz. and 32 oz. alcohol-based hand sanitizer bottles
- Disinfectant wipes
- Disposable surgical or isolation gowns (as approved by EHS)

The laboratory and associated department are responsible for providing the supplies listed below. If you experience problems ordering or sourcing these materials, email ehs@princeton.edu.
- Hand-washing soap
- Disposable paper towels
- Laboratory coats
- Gloves
- All other personal protective equipment needed to safely perform your research

Plan carefully when ordering supplies. Certain research materials may have significant delays due to high demand or shuttered production facilities.

During the suspension of normal laboratory operations, a number of buildings and their loading docks have shifted to limited schedules.
- Contact your departmental administrators for additional information regarding any restrictions or limited hours staff may be available to receive incoming shipments.
- Inbound research materials may not be shipped to private/personal addresses and then brought to campus. Contact EHS at ehs@princeton.edu if you need assistance.

Confirm with your home department the availability of other support functions both internal to your research department/institute (e.g., core imaging and analysis facilities, glass washing) as well as other campus support functions.

5.10 Managing Shared Facilities and Equipment
Many laboratory workers share laboratory equipment with others in their lab group and, in some cases, with individuals outside of their lab group.
- Carefully schedule use of shared facilities or equipment to maintain social distancing for those who have not had their vaccination status verified.
- Wear gloves when touching or manipulating equipment.
- When work is complete, wipe down high-touch surfaces with disinfectant wipes or solution if it will not damage the equipment or surfaces.
- Plan and communicate roles and responsibilities for cleaning/disinfecting.
5.11 General Work Rules

5.11.1 Meetings and Gatherings
Please see the updated Guidance on Gatherings, Events and Meetings

5.11.2 Meals and Breaks
Eating and drinking in the laboratory is still prohibited.

5.11.3 Unsafe Behaviors or Conditions
If you find that people are not observing COVID-19 safety practices and procedures, or if you recognize unsafe conditions:

- In a congenial and caring manner, advise the individual(s) how they can improve the behavior or condition.
- If you are uncomfortable alerting the person or group, or if behaviors or conditions do not improve, speak with a Principal Investigator, advisor, department manager, director of graduate studies, or another person in authority.
- If neither of the above is successful, or if you wish to remain anonymous, you can report confidentially via the EthicsPoint hotline.

5.12 Requests for Reasonable Accommodations
If an individual requests an accommodation due to a disability, the individual should notify EHS upon completion of Safe Practices for Resumption of Research training in the Employee Learning Center. EHS will work with the appropriate University office to discuss the request with the individual and ascertain if there is a reasonable accommodation that can be provided to address the individual’s needs. Given the current situation, the University will consider reasonable accommodations for individuals whose disabilities put them at a greater risk from COVID-19 (or severe symptoms from COVID-19) and who request an accommodation to eliminate possible exposure to the virus. As always, reasonable accommodation decisions are fact-specific and vary based on the relevant circumstances.

5.13 Emergency Contacts
In case of emergency, dial 911. Department of Public Safety officers are available to respond.

Environmental Health and Safety (EHS) Support: EHS staff are available, on campus, during normal business hours Monday through Friday. Email requests for services to ehs@princeton.edu or call 609-258-5294.

5.14 Related Resources
Guidance on the Use of Face Coverings
Biosafety Precautions for Working with Human Clinical Specimens that May Contain SARS-CoV-2
https://ehs.princeton.edu/laboratory-research/biological-safety/working-human-source-material/biosafety-precautions-research-human

OSHA Guidance on Preparing Workplaces for COVID-19
https://www.osha.gov/Publications/OSHA3990.pdf (PDF)

OSHA COVID-19 Website
https://www.osha.gov/SLTC/covid-19/controlprevention.html

CDC Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 (COVID-19)

ABSA SARS-CoV-2/COVID-19 TOOLBOX
https://absa.org/covid19toolbox/

WHO Laboratory biosafety guidance related to coronavirus disease 2019 (COVID-19)

CDC Guidance for Schools, Workplaces & Community Locations

Biosafety in Microbiological and Biomedical Laboratories (BMBL)
https://www.cdc.gov/labs/pdf/CDC-BiosafetyMicrobiologicalBiomedicalLaboratories-2009-P.PDF (PDF)

Back-to-work criteria for health care workers

6. BUILDING GUIDANCE

Additional guidance is available in the Princeton Playbook, particularly the section on Working Safely on Campus.

7. DEPENDENCIES

Facilities provides critical services and support with direct impact on research. Building energy and utility levels will need to be adjusted for occupancy. Cleaning and sanitizing of all research buildings along with special attention to the availability of handwashing supplies will be necessary.
to minimize spread of SARS-CoV-2. Critical on-site and remote research support is provided by a number of Special Facilities personnel, notably to the Department of Physics and the School of Engineering and Applied Sciences. As the phased resumption of campus research takes place, Facilities will scale operations according to the scope, timing, spaces, occupancy schedules and buildings utilized for research. Advance notice of the resumption of research operations, as much as is reasonably possible, and communication between Facilities key contacts and science and engineering building managers will help to smooth the transition as research activity resumes.

Facilities contacts:
- Tom Nyquist, Executive Director for Engineering and Campus Energy
  tnyquist@princeton.edu
- Joseph Morgan, Director for Facilities Operations josephm@princeton.edu
- Tom Corcoran, Associate Director of Mechanical, Electrical, and Plumbing
tc3@princeton.edu
- James Spinelli, Assistant Manager, Building Maintenance jspinell@princeton.edu
- Handy Seldon, Supervisor, Special Facilities seldon@princeton.edu
- Robert Rickett, Lead Maintenance Technician, Special Facilities rrickett@princeton.edu
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- Paul Larzelere, Supervisor, Special Facilities, Guyot/Moffett/Lewis Thomas
  plarzele@princeton.edu

Laboratory Animal Resources (LAR) provides animal care and research support for all research and teaching conducted with animals at Princeton University. This includes standard daily husbandry and regular veterinary care for all vertebrate animals housed on campus. As the phased resumption of campus research takes place, LAR will need to consult with PIs in the planning of their resumption of operations to ensure adequate support for research studies, procurement of animals and supplies, and scheduling of services. Frequent and thorough communication between LAR, PIs and research personnel about all issues, including plans for significant changes in census, need for services or training, or health concerns will be important as research activity increases.

LAR contacts:
- Laura Conour, Executive Director and Attending Veterinarian lconour@princeton.edu
- Susie Chow, Associate Director siuchow@princeton.edu
- Brian Ludwig, Facilities Manager bl@princeton.edu
- Jamus MacGuire, Assistant Director jamusm@princeton.edu
- Grace Barnett, Staff Veterinarian gbanerett@princeton.edu

Environmental Health and Safety (EHS) provides training, information, support and equipment to help researchers work safely in the laboratory, including with biological agents, chemicals, radiation and other hazards. EHS is responsible for providing researchers with written guidelines,
protocols, and specifications for safe research during the COVID-19 pandemic. Prior to the resumption of research, EHS will launch online training necessary for all researchers returning to campus, and for onboarding new researchers. EHS will distribute PPE and face coverings to on-campus researchers during the initial return to campus. Activities that are not compatible with the standard hygiene and safety guidelines need to be discussed between EHS personnel and researchers to explore options for a customized management plan.

**EHS contacts:**
- Robin Izzo, Executive Director rmizzo@princeton.edu
- Steve Elwood, Associate Director for Laboratory and Research Safety selwood@princeton.edu
- Kelly States, Associate Director for Campus Safety and EHS Operations kstates@princeton.edu
- Jackie Wagner, Assistant Director for Biosafety and Environmental Health jw6@princeton.edu
- Shaundree Davis, Assistant Director for Occupational Health shaundre@princeton.edu
- Stanley Howell, Program Manager for Chemical Safety schowell@princeton.edu

**Procurement** provides systems, processes, and support related to sourcing, contracts, purchases, and payments in support of research. Centralized sourcing of restricted research items (e.g., personal protective equipment) is being supported for the resumption of research due to disruptions to the supply chain. Working closely with academic departments, procurement staff will provide support with items that become difficult to obtain due to shortages or demand surges. As departments begin ordering research supplies, they should notify procurement of any shortages so that they can assist with assessing lead times, investigating alternate suppliers, or initiating a centrally managed purchase process for those items.

**Procurement contacts:**
- Mohamed Ela, Director mohamed.ela@princeton.edu
- Joseph Woodward, Senior Associate Director jw23@princeton.edu
- Brian Osbourne, Senior Category Manager brian.osbourne@princeton.edu

**Office of the Dean of the Faculty, Human Resources**, and the **Graduate School** provide policies and procedures for supporting faculty, managers and research personnel. As research resumes with new workplace requirements for social distancing, hygiene, health and safety procedures, these three offices will be needed to support research personnel and their managers through the application of the relevant policies and procedures on work schedules, accommodations, reporting and compliance. In addition, academic departments may need support from staffing personnel to ensure that critical positions are filled.

**Office of the Dean of the Faculty contacts:**
- Toni Turano, Deputy Dean of the Faculty tturano@princeton.edu
- Karen Haskin, Associate Dean for Academic Affairs khaskin@princeton.edu
- Alice Seneres, Assistant Dean for Academic Affairs aseneres@princeton.edu

**Graduate School contacts:**
• Cole Crittenden, Deputy Dean of the Graduate School ccrigg@princeton.edu
• Christine Murphy, Assistant Dean for Academic Affairs of the Graduate School cm15@princeton.edu

Human Resources contacts:
• Romy Riddick, Assistant Vice President rriddick@princeton.edu
• Mary Beth Larkin, Senior HR Manager mbl@princeton.edu
APPENDIX 1
Lab Configurations and Lab Occupancy Signage

<table>
<thead>
<tr>
<th>Individual Workstations</th>
<th>Shared Workstations (One User at a Time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate Social Distancing</td>
<td>Managed by Scheduling</td>
</tr>
<tr>
<td>Limited Social Distancing</td>
<td>Managed with Waiting Areas (Short Duration)</td>
</tr>
<tr>
<td>Insufficient Social Distancing</td>
<td></td>
</tr>
</tbody>
</table>

Laboratory Layout from Jadwin Hall

Lab without Social Distancing

Lab with 160 ft²/person Occupancy

Lab with 125 ft²/person Occupancy
PLAN FOR PHASED RESUMPTION OF ON-CAMPUS RESEARCH

Fume Hood Use with Inadequate Social Distancing

Fume Hood Use @ 160 ft²/person Occupancy: Shift 1

Fume Hood Use @ 160 ft²/person Occupancy: Shift 2

Fume Hood Use @ 125 ft²/person Occupancy: Shift 1

Fume Hood Use @ 125 ft²/person Occupancy: Shift 2

KEY

6’  ≥6’  Adequate Social Distancing (no overlap)

<6’  Insufficient Social Distancing (Overlap)

Laboratory Layout from Guyot Hall
PLAN FOR PHASED RESUMPTION OF ON-CAMPUS RESEARCH

Lab without Social Distancing

Lab with 160 ft²/person Occupancy

Group A

Group B

Lab with 125 ft²/person Occupancy

Individual Workstations

- Adequate Social Distancing
- Limited Social Distancing
- Insufficient Social Distancing

Shared Workstations (One User at a Time)

- Managed by Scheduling
  - Common Examples:
    - Chromatography systems
    - Centrifuges
    - Fume hoods
    - Shared hoods or BSCs
    - Spectrometers

- Managed with Waiting Areas (Short Duration)
  - Common Examples:
    - Weigh stations
    - pH meters
    - Shared refrigerator/freezers
    - Chemical Storage Areas

Laboratory Layout from Frick Chemistry Laboratory
PLAN FOR PHASED RESUMPTION OF ON-CAMPUS RESEARCH

Laboratory Without Social Distancing

- Desks
- Benches
- Shared Sinks
- Support Rooms

- 110 ft²
- 110 ft²
- 110 ft²
- 116 ft²
- 56 ft²
- 56 ft²
- 234 ft²

Lab with 160 ft²/person Occupancy

- Group A
- Group B
- Group C
- Group D

Lab with 125 ft²/person Occupancy

- Group A
- Group B

KEY

<table>
<thead>
<tr>
<th>Individual Workstations</th>
<th>Shared Workstations (One User at a Time)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
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<td>Managed by Scheduling</td>
</tr>
<tr>
<td></td>
<td>Managed with Waiting Areas (Short Duration)</td>
</tr>
<tr>
<td></td>
<td>Managed by Scheduling with Wait Time Between Users (Environmental Rooms)</td>
</tr>
</tbody>
</table>

Laboratory Layout from Carl Icahn Laboratory
Additional Challenges for Open-Design Labs

**Divided Lab Benches**

Adjacent labs must coordinate to avoid inadequate social distancing

- May not meet min. 6’ separation
- Minimal separation, not recommended

**Divided Lab Aisles**

Adjacent labs must coordinate to avoid inadequate social distancing

- Does not meet min. 6’ separation
- Minimal separation, not recommended

**Shared Support Spaces**

Multiple labs may regularly use the same support spaces. All users of shared space/equipment must develop coordinated scheduling and usage plans to avoid work disruption and over-crowding in these support spaces often limited to a single occupant.

Consideration may need to be made for “affiliated” users who have arrangements to have access to shared equipment spaces (i.e., Research Group 6).
# Plan for Phased Resumption of On-Campus Research

<table>
<thead>
<tr>
<th>Room Volume: &lt; 550 cu ft (8'x8' Environmental Rooms and smaller)</th>
<th>Room Volume: ≥550 to &lt;1600 cu ft (10'x20' Environmental Rooms and smaller)</th>
<th>Room Volume: ≥1600 cu ft (larger than 10'x20' Environmental Rooms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Between Users:</td>
<td>Time Between Users:</td>
<td>Time Between Users:</td>
</tr>
<tr>
<td>At least 1 hour</td>
<td>At least 1 hour</td>
<td>At least 1 hour</td>
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<tr>
<td>At least 30 min</td>
<td>At least 30 min</td>
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<td>At least 15 min</td>
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<td>&lt; 30</td>
<td>&lt; 30</td>
<td>&lt; 30</td>
</tr>
<tr>
<td>≥ 30</td>
<td>≥ 30</td>
<td>≥ 30</td>
</tr>
</tbody>
</table>

**Duration of Occupancy (min)**

### Key

- **Reasonable Risk:** No additional risk mitigation required.
- **Moderate Risk:** Consider lengthening time between users or limiting duration of use to further mitigate the risk.
- **High Risk:** Further risk mitigation required: by lengthening time between users, limiting duration of occupancy, or using additional risk mitigation strategies. Contact EHS for additional assistance.
- **Very High Risk:** Further risk mitigation required: by lengthening time between users, limiting duration of occupancy, or using additional risk mitigation strategies. Contact EHS for additional assistance.
Maximum Occupancy

1

Special Instructions:

- *Example: Schedule time in this room via...*
- *Example: Wipe down [equipment name] before leaving room*

You must wear a face covering when in the laboratory.

Lab occupants must disinfect all frequently touched surfaces on a daily basis.
<table>
<thead>
<tr>
<th>Principal Investigator:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible Individual:</td>
</tr>
<tr>
<td>Building:</td>
</tr>
<tr>
<td>Room Number:</td>
</tr>
</tbody>
</table>

### Maximum Occupancy

![Number 3](image)

#### Special Instructions:

- *Example: Schedule time in this room via...*
- *Example: Wipe down [equipment name] before leaving room*

You must wear a face covering when in the laboratory.

Lab occupants must disinfect all frequently touched surfaces on a daily basis.
Appendix 2

Guidance for Resuming Human Subjects Research

Issued June 15, 2020
Revised February 1, 2021 and September 9, 2021

1. Introduction

This guidance is to be interpreted in the context of the Plan for Phased Resumption of On-Campus Research, as well as any policies or restrictions specified by the individual facilities, institutes or departments, within Princeton or other institutions at which the research is conducted. This document will be revised in accordance with any relevant changes to guidance issued by Princeton University, or any relevant changes to the current understanding of the COVID-19 pandemic. This guidance applies to all on- and off-campus human subjects research conducted during the COVID-19 pandemic.

The Plan for Phased Resumption of On-Campus Research describes four levels of on-campus operation, which include 1 (normal operations), 2 (phased resumption), 3 (essential operations), and 4 (operations suspended). Princeton is currently in level 2.

2. Categories of Human Subjects Research

This document divides human subjects research into three categories based upon research activity followed by specific restrictions for each category of research. The last section provides a summary of the restrictions that apply to research categories #2 and #3.

- **Category #1: Distance research.** This type of research does not involve any physical contact or proximity between the study team and the subjects. Examples of distance research are study procedures done online or via phone.

- **Category #2: In-person research that does not necessitate close interaction with research subjects or equipment.** This type of research is conducted in-person without the involvement of medical equipment, machines, devices, drugs, or other study procedures that necessitate close proximity to the subjects. Any mandated requirements can be fully met while carrying out this type of research. Examples of Category #2 research include in-person surveys, ethnographic research, observations, or other conversations. This type of research may occur on-campus or off-campus.

- **Category #3: In-person research that necessitates close interaction of research subjects with the research team or equipment.** This type of research is conducted in person and with the involvement of medical equipment, machines, devices, drugs or other study procedures that necessitate close proximity of the researcher to the subjects. Examples of these studies include, but are not limited to, use of an fMRI, EKG, EEG, eye tracking or computer labs to gather data. Most, but not all, studies in which there is supervised acquisition of a biosample (saliva, blood, feces, hair) will fall in this category.
category. Entirely self-monitored acquisition of a sample (i.e., home collection of saliva or blood spots) may fall under Category 2 research.

3. Guidance for Each Research Category

Category #1: Distance research

This category of research does not present risks to subjects due to COVID-19. Therefore, this category of research can continue and may be carried out whether one is on or off campus.

Category #2: In-person research that does not necessitate close interaction of research subjects with the research team or equipment

This category of research may occur at on-campus locations or off campus. Regardless of location, all category #2 research must adhere to the following restrictions:

1. Researchers and research subjects must follow Environmental Health and Safety’s Guidelines for Safe Research During COVID-19 Pandemic and the Princeton University Health Services guidelines for what to do if you are experiencing symptoms.
2. Consent forms must be modified to include the following statement of risk. This language is pre-approved by the IRB and can be implemented without submission of an amendment to the IRB:
   - “The study team has taken CDC and local public health authorities-suggested safety measures to minimize exposure to SARS-CoV-2 (the cause of COVID-19).”
   - Note that with the exception of the modification to the informed consent language described above, changes to an approved IRB protocol must receive approval from the IRB prior to implementation.
   - Research subjects that have already consented do not need to provide new consent incorporating this language. In this case, researchers should verbally indicate to the research subject:
     - “The study team has taken CDC- and Princeton University-suggested safety measures to minimize exposure to SARS-CoV-2 (the cause of COVID-19).”
3. In-person visits should be as brief as possible consistent with the study procedures.
4. The number of required research personnel present during the interaction with the subject(s) should be limited to the minimum required to perform or assist with the interaction.
5. If research subjects do not have the required PPE recommended by Environmental Health and Safety’s Guidelines for Safe Research During COVID-19 Pandemic, such PPE must be provided by the researcher to the research subject(s).

- For on-campus category #2 research
  1. All restrictions outlined in 1-5 above must be followed.
2. Enrolled undergraduate and graduate students, postdocs, faculty, and staff, with permission to access University buildings can participate in human-subjects research, either as a researcher or as a research subject.

3. Researchers and research subjects must be in compliance with the University’s COVID policies and guidance, including but not limited to vaccination, COVID-19 testing, face coverings, and visitors:
   a. Faculty and Staff Vaccination Requirement
   b. Student Vaccination Requirement
   c. Asymptomatic Testing Protocols
   d. Face Coverings Policy
   e. Visitor Policy
   f. International student health related requirements and frequently asked questions

4. Research subjects who are not considered enrolled students or employees of Princeton University are considered Sponsored Visitors as defined in section IV of the Visitor Policy. Researchers sponsoring such visitors must follow the procedures outlined in the Visitor Policy under section V: Procedures for Requesting Visitor Approval. Sponsors must fill out a Sponsored Visitor Request Form.

5. There may be research needs that involve non-Princeton research subjects (sponsored visitors), who are eligible for the vaccine but who have received an accommodation that they will not be vaccinated. Consistent with current visitor policy, these individuals may not enter campus buildings. Special consideration may be given on a case-by-case basis by contacting EHS at 609-258-9294 or via email at ehs@princeton.edu. Investigators must submit an amendment to the IRB to reflect the accommodations.

6. Children who are not yet eligible for the vaccine may not participate in HSR until the required modifications to the relevant protocols are reviewed and approved by the IRB.

7. Students or employees expect that research projects will be designed and implemented to encompass all of the health and safety measures required by the University in response to the COVID-19 pandemic and may not be coerced to work on or participate in research projects.

- For off-campus category #2 research
  o Any travel necessary to reach the off-campus location must be performed in compliance with current University permissible travel guidelines.
  o Prior to commencing in-person interactions off-campus, researchers interacting with research subjects who are not part of Princeton University’s testing program or using the Daily Symptom Check app for potential SARS-CoV-2 infection or exposure should screen potential research subjects with the following questions:
    - Do you have any of the following symptoms?
      - Fever greater than 100°F
PLAN FOR PHASED RESUMPTION OF ON-CAMPUS RESEARCH

- Cough
- Shortness of breath
- Loss of taste or smell
- Body aches or chills
- In the past 14 days, have you lived with, visited, cared for, or been in a room for a prolonged period of time (within 6 feet for 15 cumulative minutes during a 24-hour period) with someone who is being monitored or has been confirmed to have COVID-19?
- Have you recently had a test for COVID-19 that is still pending?
  - If the research subject answers “yes” to any of the above screening questions the study staff member must cancel the study visit. Research subjects who exhibit symptoms consistent with COVID-19 disease must email University Health Services at communityhealth@princeton.edu (Princeton University faculty, staff, postdocs, and students) or should be encouraged to consult with their medical provider (non-University people).

Category #3: In-person research that necessitates close interaction of research subjects with the research team or equipment.

All of the guidance listed above for Category #2 must be met for research in Category #3. The following additional restrictions apply:

1. The protocols and practices associated with use of study equipment and study lab space must adhere not only to the policies specified by the institution at which the research is to be conducted (Princeton or any other) but also to any specified by the facility, department or institute at which the research is to be conducted.
2. A brochure or fact sheet should be made available to prospective research subjects informing them about the current status of COVID-19, the potential risks for exposure and the additional precautions that have been implemented by the research team to minimize the potential for exposure.

4. Summary of Restrictions

1. Research that deviates from this guidance may need to be reviewed by the full IRB, which may delay implementation of the changes.
2. Research that requires the collection of biospecimens using procedures different than in the approved protocol may need to be reviewed by the IBC and IRB.
3. Off-campus, in-person, human-subjects research, both domestic and international, is allowed as long as it is conducted following local regulations, CDC recommendations, and this document’s guidance.
4. University international and domestic travel restrictions are still in effect. Researchers already at the intended site of research may perform in-person human subjects research, as long as it is conducted following local regulations, CDC recommendations, and this document’s guidance.
5. Who may be involved in research?

- Enrolled undergraduate and graduate students, postdocs, faculty, and staff with permission to access University buildings are allowed to act as research subjects in on-campus research labs provided they are approved to be back on campus by the University, and follow the recommendations in Environmental Health and Safety’s Guidelines for Safe Research During COVID-19 Pandemic and this guidance.

- Enrolled undergraduate and graduate students, postdocs, faculty, and staff with permission to access University buildings are allowed to perform in-person research on campus provided that they are under an approved IRB protocol, approved to be back on campus by the University, and follow the recommendations in Environmental Health and Safety’s Guidelines for Safe Research During COVID-19 Pandemic and this guidance.

- Non-University personnel may be permitted to participate as research subjects as Sponsored Visitors (see definition in section IV) as defined in the Visitor Policy. Researchers sponsoring such visitors must follow the procedures outlined in Section V: Procedures for Requesting Visitor Approval and must fill out a Sponsored Visitor Request Form. Other questions regarding visitor approval should be directed to EHS (609-258-9294, ehs@princeton.edu).
APPENDIX 3
Phased Plan for Resumption of Services
at Princeton University Library
Issued May 28, 2020

As of March 20, 2020, Princeton University Library (PUL) moved to an online-only service and ceased all in-person operations on campus. Access to digitized collections, licensed databases, e-journals, e-books, research tools -- and to librarians through remote consultations -- has been maintained throughout the spring semester, and additional virtual assistance has been provided for ongoing research, teaching, and learning.

PUL has a phased plan for the resumption of on-site services consistent with the Executive Orders issued by the Governor of New Jersey. The plan was developed in close collaboration with the Office of Environmental Health and Safety and other campus partners to assure alignment with the University’s requirements for a safe restart of campus operations.

This is a living document and may be subject to change as further information becomes available.

Reopening PUL will align with the University’s commitment to safely reopen laboratories, libraries, and other facilities responsibly when state law permits. Our phased plan is as follows:

PHASE 1: (Current phase) Campus operations suspended, all Library facilities closed to Princeton University patrons and not physically staffed

1. The Library buildings are closed to the public, meaning no patrons may access Library spaces.
2. Online support, access to online collections, reference services, consultation, and workshops/tutorials continue, and Library staff provide online tutorials in response to queries from students and faculty.
3. Remote operations for working with data services through the Data and Statistical Services Lab and the Maps and Geospatial Information Center continue (consultation and workshops/training).
4. Some publishers and vendors have temporarily provided expanded access to online resources to facilitate online instruction and research, and these are listed on the PUL webpage: PUL Support for Remote Research, Teaching and Learning.
5. Loan periods for print materials currently in circulation have been extended. Renewals can be made online.
6. Library fines suspended until further notice.
7. Interlibrary loan services for articles and other resources that can be delivered as a digital copy continue.
8. Faculty and graduate students are invited to send in requests for digitization that will begin in Phase 2, to support their own research and in anticipation of the possibility of an online-only or partially online fall term.
9. Focus groups are conducted with faculty and graduate students to gather input and feedback to support resumption of on-site services planning.

10. Training begins for staff returning to campus to provide Phase 2 services. This training includes usage of personal protective equipment such as masks and gloves as well as hand washing.

11. Physical spaces are prepared for the return of limited staff, including moving furniture and adding signage regarding protocols and traffic flow.

**PHASE 2: Further support for research resumes, a small number of Library staff (10-25% density) return to campus to provide priority on-site services including book pick-up services and in-house digitization on request**

1. The Library remains closed to the public, meaning no patrons may access the Library spaces. A small percentage of Library staff will need to report to campus to perform work that may only be conducted on-site, and they will be provided appropriately safe working conditions, in accordance with University policies and prevailing public health guidance and directives issued by national, state, and local government authorities.

2. Other Library staff will continue to telework where practicable.

3. Book pick-up and return services are implemented. The service begins at Firestone and subsequently extends to branch libraries. Patrons will pick up books reserved via the catalog from the Firestone Lobby, and at front entrances in the branches, and leave immediately. Patrons are expected to adhere to best practices for social distancing.

4. Isolation strategies for returned materials developed and enforced.

5. Electronic and physical delivery of materials from ReCAP resumes.

6. [HathiTrust Emergency Access Service](#) to digital versions of millions of volumes disabled due to the restoration of access to print collections.

7. Circulation of BorrowDirect materials resumes as soon as there are a sufficient number of BorrowDirect Libraries ready to circulate these materials.

8. Enhanced Digitization Service implemented. In light of the increased demand for digital access to books not available through the HathiTrust, as well as requests for materials held in the Library’s special collections, a significant ramp-up of digitization efforts is required. Additional staff, scanners, and digitization equipment will be deployed. Patrons may request the digitization of any analog resource, subject to copyright restrictions.

9. Graduate students may schedule appointments to pick up materials from their carrels, if they have not already done so.

10. All other services remain remote.

11. Physical spaces prepared for limited return of patrons in Phase 3, with the addition of further signage regarding safety protocols and traffic flow.

**PHASE 3: Partial reopening (on successful completion of Phase 2 objectives and state law permit) of some Library buildings to Princeton University patrons only**

1. Book pick-up and return services remain in effect.
2. Pilots conducted to test limited patron access to the open stacks, browsing by appointment, and other methods. Access to the stacks may be restricted to staff or a limited number of patrons at one time.

3. Workflows for materials selected by patrons from the open stacks during appointments or special hours will be developed. Isolation strategies for materials will be developed and enforced.

4. Distancing and other safety protocols will continue to be enforced through signage and other means. Masks must be worn at all times. Gloves must be worn when handling books and equipment.

5. Installation of protective shields at all service points.

6. Library facilities will gradually reopen with some areas available for study and other uses, subject to the removal of seating, while others remain unavailable because physical distancing cannot be assured.

7. Limited opening hours are available.

8. All other services remain remote.

**PHASE 4: Return to semi-normal Library operations and increased on-site services**

1. Considerations for resuming semi-normal operations will include the following:
   a. Consistent use of masks and gloves and adherence to social distance protocols by patrons during Phase 3, along with other risk mitigation measures, to support Library staff who engage in public services.
   b. Successful installation of protective shields at all service points during Phase 3.
   c. Successful removal of seating or limitations on access to some areas during Phase 3.
   d. Continued 24-hour quarantine of circulated books that have been returned or used in-house.

2. Removal of most public computer stations to ensure social protocols.

3. Removal of commonly used items such as staplers, etc.

4. Special Collections Reading Rooms may have additional limitations in terms of access and use of materials.

5. Public exhibition areas including Cotsen Children’s Library’s public gallery and the Milberg Exhibition Gallery may open with limited hours and capacity.

6. Tiger Tea Room may not reopen for some time.

7. Remote services will continue in support of remote teaching and research.

**PHASE 5: Return to new normal Library operations**

1. Restrictions begin to lift as able.

2. Document published (red light, yellow light, green light) on how PUL will function while mitigating risk in response to virus outbreaks in the future.
APPENDIX 4
Guidelines for Resuming Field Research
Issued April 28, 2021

These guidelines are to be used in conjunction with the Plan for Phased Resumption of On-Campus Research for Princeton University (Plan). While the Plan focuses on on-campus research, field researchers are encouraged to become familiar with it, as it provides general safety and precautionary information that may be practicable for field research being performed during the COVID-19 pandemic. The Plan describes four levels of on-campus operation, which include 1 (normal operations), 2 (phased resumption), 3 (essential operations), and 4 (operations suspended). Princeton is currently in level 2. These guidelines will be revised in accordance with major changes to guidance issued by Princeton University, or any other relevant major changes to the current understanding of the COVID-19 pandemic.

Scope: These guidelines apply to all field research faculty, students, researchers, staff and postdoctoral researchers who may be considered part of the research team, regardless of whether the research occurs domestically or internationally. These guidelines apply to all forms of field research whether they arise from the humanities, social sciences, natural sciences, or engineering and applied sciences. Field research is any form of research conducted outside of a laboratory, academic building or library. Human subjects research guidelines are handled separately from field research.

As described in more detail below, each Principal Investigator (PI) is required to submit a Field Research Plan (FRP) to their department chair or institute director for approval. Once approved, the PI then submits the plan to the Dean for Research (DFR) for review and approval prior to conducting any field research. A template of this plan is provided in the FRP link above for your convenience. You may choose to use a different format, but the information included in the template must be provided in order for DFR to make a complete assessment of risks and proposed mitigation strategies. The plan should be submitted to researchplan@princeton.edu. DFR, working with Environmental Health and Safety (EHS), will manage the review process and communicate the determination(s) to the PI and to the department chair and manager. The PI is responsible for securing any additional approvals, including those required by the department, for travel, funding, local permits/permissions, as well as research compliance-related approvals such as from the IACUC, IBC, and export control.

General Guidelines:

- Field research that is conducted outdoors entails lower risk for the spread of COVID-19 than indoor laboratory research. We recognize that in some situations (e.g., sample collection or observational research performed alone in the field), many aspects of the University Plan may not apply. However, there are also situations (e.g. pop-up field labs, shared equipment, etc.) when many aspects of the University Plan do apply and researchers should plan to follow the University guidelines, as appropriate and relevant, regarding social distancing, hygiene, sanitation, PPE, space requirements, and self-
monitoring as outlined in the Guidelines for Safe Research During COVID-19 Pandemic. If University guidelines cannot be followed due to circumstantial or research-related reasons, this must be disclosed in the FRP, along with plans to minimize the risk of spread or being infected by the virus.

- Travel may be an important aspect of field research. Travel associated with field research must comply with all University travel guidelines, and PIs must ensure that all travel proposed as part of field research is permissible under University policy. The approval of the Field Research Plan does not include permission to travel, which must be secured separately according to the travel guidelines linked above.

- Researchers must follow all local, state, federal and applicable University guidelines, including as relate to quarantines before and after travel, symptom tracking, hygiene, sanitation, isolation if feeling ill, masking, physical distancing and gathering limits.

- Each Principal Investigator (PI) is to submit a Field Research Plan (FRP) to their department chair or institute director for approval prior to submitting to DFR (researchplan@princeton.edu) for review and approval. In making its determination, DFR will consult with EHS, UHS, IACUC, IBC, IRB, or any of the deans or department chairs as appropriate to safeguard individual researchers.

- Every researcher (faculty, student, postdoctoral researcher or staff), who is part of a team, must self-evaluate and report symptoms every day prior to beginning their research, using the Daily Symptom Check self-screening app in TigerSafe or by visiting the Daily Symptom Check webpage.

- In accordance with the University’s phased resumption of research plan no coercion and safe workplace statements (Section 4), it is expected that the FRP will be shared with all researchers working on the project and that all have confirmed they feel that proper safety precautions have been implemented in order for the research to be conducted safely. If a researcher has raised concerns that cannot be easily accommodated through adjustments to the FRP, they should first reach out to EHS (ehs@princeton.edu) and then contact Director of Undergraduate Research Pascale Poussart (poussart@princeton.edu) for concerns related to undergraduates, Assistant Dean for Academic Affairs Christine Murphy (cm15@princeton.edu) for concerns related to graduate students, Associate Dean for Academic Affairs Karen Haskin (khaskin@princeton.edu) for concerns related to DOF-appointed researchers including postdoctoral researchers, and/or Human Resources for concerns related to research assistants, laboratory technicians or other staff.

- PIs must monitor the local situation where the field research is occurring with regards to the progress, phase or level of the COVID-19 pandemic, as well as required local public health measures. PIs can find useful current COVID-19 risk information for the United States on the New York Times and COVID Act Now websites; for international locations, PIs may contact Princeton Global Safety & Security for assistance in identifying reliable sources for risk data. If concerns arise or the situation deteriorates, the PI should alert members of the research team, EHS, their department chair and their dean, regardless of whether they are on site or not.
• PIs should periodically check-in with their students and research team to understand their feelings and level of anxiety with respect to continuing their work in the field during the changing COVID-19 environment. If, at any time, students or members of the research team express concerns about their personal safety, the PI should alert EHS, their chair and their dean.

For the purposes of this guideline, field research is divided into three categories, based upon the ability to maintain social distancing. Specific considerations, which are to be addressed in the FRP, are listed for each category.

Category #1: Field researchers who are acting alone, live locally, have no need to travel or can travel alone using their own personal vehicle, and whose research does not bring them into contact with others.

Category #2: Field researchers working alone or as part of a team where social distancing is easily maintained.

Category #3: Field researchers working alone or as part of a team where social distancing guidelines cannot be easily maintained.

Conditions that must be met for each research category:

Category #1: This category of research presents low risk of exposure. Researchers should follow social distancing and face covering guidelines established by the University as well as the CDC guidelines on how to protect yourself and what to do if you are sick. Any travel involved must comply with University travel guidelines. This research may proceed once the FRP is submitted and approved by the DFR.

Category #2: This category of research presents minimal risk to participants if the research is designed to minimize travel and contact with other individuals. This research may proceed once the FRP is submitted and approved by the DFR. In addition to the conditions outlined above for category #1, the following additional restrictions apply to category #2:

• Travel must comply with University travel guidelines.
• Researchers should follow, as appropriate and relevant, social distancing, hygiene, sanitation, PPE, space requirements, self-monitoring, and all local, state, and/or national government requirements.
• In-person interactions should be as brief as possible consistent with the study procedures.
• The number of required research personnel present should be limited to the minimum required to perform or assist with the interaction.
• If all research personnel do not have the required PPE recommended by Environmental Health and Safety’s Guidelines for Safe Research During COVID-19 Pandemic, such PPE must be provided by the Princeton researcher to other participants. All researchers should wash their hands before and after a research interaction and wear an appropriate face covering.
Category #3: This category of research presents greater than minimal risk to the researcher and those they may come in contact with in order to meet the goals of the research. This research may proceed once the FRP is submitted and approved by the DFR. Any travel involved must comply with University travel guidelines. In addition to the conditions outlined above for category #2, the following additional restrictions apply to category #3:

- EHS must review and approve all practices in which social distancing, hygiene, sanitation, PPE, and space requirements cannot occur, especially with respect to animal, data set, sample, or environmental manipulation, lodging and dining.
- EHS must review and approve the use of any equipment that is used by multiple users.
Assumptions and Notes

- This document focuses specifically on opening the Art Museum to provide research and teaching support for Princeton University (PU) faculty, staff, and students effective August 31 consistent with CDC, New Jersey, and University guidelines.
- In this document, Researcher is defined as PU Faculty, staff, approved visiting fellows, and graduate students who for the purpose of teaching/scholarship have been approved to be on campus. Only PU undergraduates who have been authorized to be on campus and who have signed the social contract will be permitted in the Art Museum for research and teaching related visits.
- In-person research requests from independent scholars or scholars from other institutions will not be accommodated.
- To minimize risk, the Art Museum will only use our two (2) largest study rooms for research appointments: the Ancient Study Room (378 sq. ft.) and the Works on Paper Study Room (381 sq. ft.). Occupancy is three (3) people for each space.
- Study Rooms will be setup consistent with EHS, CDC, and New Jersey COVID-19 guidelines.
- The Museum galleries will not open to the public until at least January 1, 2021.
- The Museum will offer digital access to records and high-quality images of works of art requested as an alternative to in-person visits.
- The Museum will use University templates for signage where appropriate and will develop custom signage as needed.
- As recommended by EHS, occupancy will be determined based on 125 sq. ft. per person.
- The Museum typically accommodates 30 to 35 research appointments per semester. We anticipate that this number will be lower for Fall 2020.
- The Museum will seek to provide a substantially touch-free experience.
- Information about scheduling research appointments and access to Museum resources will be posted to the Museum’s website. Policies and safety guidelines for in-person research appointments will be communicated with researcher during the scheduling process.
- Until further notice, all research visits, including gallery visits, will be handled like study room visits.

Policies for Research Visits

- Research visits in Museum study rooms and galleries will be available by appointment only and will be limited to Monday to Friday between 9:30am and 3:30pm.
- Research appointments in study rooms will be accompanied by Museum staff who will serve as proctor. Research appointments in the galleries will be accompanied by a
Security Officer. If there are scheduling concerns, the Museum and Security will coordinate to support research appointments.

- The Museum may schedule one (1) research appointment per study room per day. The Museum will stagger research appointments that require proctors.
- Research appointments in study rooms will be limited to two (2) researchers and one (1) Museum staff member.
- Research appointments in the Museum galleries will be based on the permissible occupancy levels of the galleries.
- Research appointments will be typically one hour. The length of research appointments may be limited based on staff availability.

**Scheduling Process for Research Appointments - Communications with Researcher**

- Research requests will be directed to Curator of Academic Programs Veronica White (vmwhite@princeton.edu) and Visitor Logistics Coordinator Louise Barrett (puamtour@princeton.edu) for processing.
  - Research requests from non-PU scholars will be declined.
- All requests for research appointments will be reviewed by the appropriate curators and staff. Steps for review:
  - Only PU faculty, staff, and students authorized to be on campus are permitted to schedule research appointments.
  - Only objects located at the Museum will be accessible for research visits. Objects will not be transported from other locations.
  - Requests for research appointments must be received at least two weeks in advance.
    - We will not be able to accommodate research requests with less than two weeks’ notice.
    - No unannounced visits will be permitted.
    - The Museum cannot guarantee desired days/times for research requests; days/times will depend on the availability of space and staff.
- Communicate to researcher that all visits and visitors must strictly adhere to EHS guidelines for work on campus:
  - Confirmation email will reiterate that all visits must be in compliance with EHS guidelines, including approval to be on campus, completion of EHS training, and adherence to EHS guidelines while in the gallery or study room.
- Confirm entrance and visit logistics with researcher:
  - Researcher must wear a mask when entering and for the entirety of the appointment.
  - Enter through staff entrance, show ID, and check-in with Security; meet proctor in staff lobby.
  - Connect researcher and proctor via email for additional communications.
  - Indicate to the researcher that there is no space for breaks and that they are only allowed in the building for the duration of their appointment.
  - Restrooms will be available to researcher.
Scheduling Process - Internal Communications

- Share the appointment date/time with Security and Facilities to ensure proper occupancy levels.
  - Email Assistant Security Operations Manager Ian Watts and Acting Head Art Museum Security Supervisor Tom Keeth to add approved research visits to the Museum’s “On Campus” calendar on SharePoint. This calendar is used to track all persons on-site. Research visits will be added to ensure that security and facilities staff know who is expected to be in the Museum, particularly in back-of-house areas, on any given day.
- Determine the study room for research appointment based on object package and space availability.
  - To minimize exposure, the Art Museum will only use our two largest available study rooms for research appointments: the Ancient Study Room (378 sq. ft.) and the Works on Paper Study Room (381 sq. ft.). Occupancy is three people for each space.

Day of Visit

- All researchers will come to the Museum’s staff entrance.
- The staff entrance will be locked. The researcher will use the intercom. Security can see anyone approaching the staff entrance via camera and will “buzz” people into the vestibule.
  - Signage on exterior door will indicate:
    If you are here for an appointment, please use the intercom.
    To make an appointment, please see our website.
  - There is also University signage about wearing a mask to enter the building.
- The researcher will check in with the officer in the Security Control Room and show a photo ID.
- Security will confirm the research appointment on the weekly schedule and sign in the researcher.
- If the researcher is not wearing a face covering, security will remind them that face coverings are required in all campus buildings and will be required for the duration of this appointment.
- The assigned proctor will meet the researcher in the staff lobby at the scheduled time.
  - Changes to appointments need to be requested at least 72 hours in advance. Changes to appointments requested less than 72 hours in advance will be accommodated where possible.
  - The restroom in the staff lobby is available for researchers. There will be University template signage regarding proper restroom protocol on the restroom door.
  - Hand sanitizer is located in the security vestibule and the staff lobby.
  - Researchers are not permitted to bring any bags into the study rooms.
    - Researchers may leave bags in the staff lobby.
• Proctors and researchers are encouraged to use stairways whenever possible, rather than elevators.
• The proctor will put a sign on the study room door when the room is occupied.
• During the visit, the proctor will remain in the study room following all safety guidelines.
  o If the researcher needs to use the restroom during the visit, the staff lobby and gallery restrooms are available and have been fitted with touchless features.
  o Tables in the study rooms will have two to four chairs depending on the size of the table and available space in each study room. Excess chairs will remain in study rooms as storage is limited, but will be moved to corners/ends of each study, taped off, or stacked.
  o If the table is less than 6’ wide, chairs will be staggered around the table—not directly across from each other.
  o The proctor and the researcher need to maintain social distancing throughout the appointment. If a proctor needs to handle art work, the researcher needs to step away from the table/viewing area. The proctor will set up the work of art and then will step away for the researcher. Each study room will be different, based on the space, layout, and objects, but all study rooms will have the necessary space to social distance.
• At the end of the appointment, the proctor will put a sign on the study room door to note that the room has been used and is awaiting cleaning.
• The researcher and proctor retrace the route to the staff lobby.
• The researcher checks-out with Security.

Cleaning

• Cleaning will follow EHS guidelines: Building Services custodians will continue, on a daily basis, to clean and disinfect classrooms, lobbies, restrooms, and high-contact surfaces such as light switches, handrails, elevator buttons, and doorknobs.
• Study rooms that have been used will be cleaned the following day between 8 and 9 am.
  o Proctors will not enter study rooms before 9 am, or until the sign indicating that the study room has been cleaned is put in place.

Requests for Filming and Photography in the Galleries and Study Rooms

• In order to support virtual teaching, the Museum will allow researchers to film in the galleries.
• Researchers who wish to film in the galleries must submit requests two weeks in advance.
• The Museum will not provide any technical support or equipment for filming requests; researchers may film on their own with portable devices such as an iPhone.
• Non-flash photography is allowed in the galleries. Photography is not permitted of works identified with “no photography” icons on their gallery labels.
• Non-flash photography of objects will be permitted in study rooms as long as security and storage areas are not captured.
• Filming and photography may only be used for teaching and personal research purposes. Photography and filming for commercial use is not permitted.