

Yale *Environmental Health & Safety*

EHS Guidance for In-Person Undergraduate Teaching/Instructional Laboratories

Remote teaching

Take home lab assignments – If lab kits with necessary tools and samples to use in experiments will be shipped to students, consider all safety implications (chemical, biological, etc.).

In-person classes

Consider a hybrid model of teaching to include distance learning and in-person classes to help reduce the number of in-person attendees.

Options for face masks and shields used for instructors are at <https://ehs.yale.edu/face-covering-instructors>.

In-person classes should have a COVID-19 health and safety plan and must submit a registration via the EHS Integrator, <https://ehsis.yale.edu/EHSIntegrator/Registration>, *Phase 3 - Teaching/Instructional Laboratories* registration. Include details on how students will keep 6 feet social distancing and promote behaviors and an environment that reduces spread, as follows:

1. Post maximum occupancy for rooms and configure to accommodate appropriate physical distancing. Remove or mark extra chairs and tables. Follow these guidelines to set occupancy limits:
 - Students shall be spaced six feet apart.
 - The occupancy limit is less than or equal to 50% of capacity according to the Registrar's records or, when appropriate, Facilities' analysis that considers similar rooms.
 - If occupancy cannot be readily ascertained, limit to 1 person per 150 square feet.
2. Create a traffic pattern to promote 6 feet social distancing. Wherever possible, create one-way traffic. Design one-way paths for students to walk through the lab and designate entry and exit ways. Place appropriate signage at entrances indicating how to proceed.
3. Ensure ventilation is optimized.
 - Keep the fume hood sashes at the marked height (or at the sash stop) and de-clutter fume hoods.
 - Do not ignore faulty flow alarms.
4. Minimize contacts via shared lab equipment and supplies.
 - Discourage sharing of items that are difficult to clean or disinfect.
 - Eliminate reusable lab items and replace with single use options if possible
 - Place equipment a minimum of 6 feet apart and demarcate (using tape) the location to prevent it from being moved.
5. Implement a cleaning procedure (see [Cleaning and Disinfection of Laboratories on Campus](#))– Provide details on how the lab, shared equipment, and reusable supplies are cleaned before and after use.
 - Ensure adequate cleaning and sanitizing supplies are available prior to lab sessions. (Departments are responsible for sourcing these supplies)
6. Require that students wear masks and PPE.

- Require the use of face coverings in the lab. 3-ply disposable face masks used in labs must be disposed before leaving the lab. Cloth face coverings, including the Yale blue cloth masks, are not permitted in wet labs.
 - Decontamination and storage procedures are required for reusable PPE (lab coats should remain in-lab, safety glasses should be cleaned before being stored, etc.).
 - Clear face masks and disposable face shields can usually be cleaned and reused for multiple days. To clean them:
 1. While wearing gloves, carefully wipe the *inside, followed by the outside* of the face shield or goggles using a clean cloth saturated with neutral detergent solution or cleaner wipe.
 2. Carefully wipe the *outside* of the face shield or goggles using a wipe or clean cloth saturated with EPA-registered hospital disinfectant solution.
 3. Wipe the outside of face shield or goggles with clean water or alcohol to remove residue.
 4. Fully dry (air dry or use clean absorbent towels).
 5. Remove gloves and perform hand hygiene.
 - Discard your face shield or clear face mask if it becomes uncleanable or damaged.
7. Minimize the need for proximity instruction.
 - If 6 feet social distancing cannot be maintained, a risk assessment must be conducted by EHS.
 - See “[Requirements for Physical Distancing and Minimizing Face-to-Face Contact](#)” for more information on how to minimize proximity instruction.
 8. Plan for emergencies that may require Faculty or TA’s to be near students to assist.
 - Assess the need for additional PPE or external help to respond to foreseeable emergencies (spills, injuries, etc.) for each lab.
 9. Promote prevention strategies.
 - Require students to wash hands frequently or use hand sanitizer.
 - Use reminders (posters, verbal warnings, discussions) for keeping 6 feet social distance from one another. Posters are available to order via YPPS.
 10. Plan for shutdown if a rebound in local infections necessitates continued physical distancing. Prepare for shutdowns at the end of each session.
 - Put away hazardous material.
 - Ensure waste is properly collected, labeled and placed in waste accumulation area.
 - See “<https://ehs.yale.edu/sites/default/files/files/ramp-down-checklist.pdf>” for more information regarding the Ramp Down process.

Resources:

<https://ypps.yale.edu/returntoyale>

<https://covid19.yale.edu/health-safety-guidelines>

<https://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/considerations.html#principles>

<https://portal.ct.gov/-/media/Coronavirus/COVID-19-Reopening-Guidance-for-Undergraduate-Colleges-and-Universities.pdf>

<https://appengine.egov.com/apps/ct/DPH/Connecticut-Travel-Health-Form>

<https://yalehealth.yale.edu/when-end-self-isolation-or-quarantine>

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wash-cloth-face-coverings.html>