

Conducting a Lab Clean-Out

Conducting periodic clean-outs can help keep labs safe and ensure efficient operations. Cluttered facilities, unused laboratory equipment, and messy storage areas can cause hazards and create the perception of limited research space, when in fact the space just needs to be optimized. Cleaning out unused equipment or outdated materials frees up space in the lab, supports waste diversion goals, and could benefit other researchers in need of supplies.

To conduct a lab clean-out, you'll need to involve researchers, environmental health and safety (EHS) personnel, facilities management, and property managers. The sections below cover some key areas to focus on during a lab clean-up effort. Consider creating a "chore list" to assign the following tasks to lab staff, volunteers, EHS personnel, or other participants.

Equipment

Are labs holding onto equipment they no longer need or that should be retired or replaced?

- Walk each lab space and take inventory, noting any unused, broken, or outdated laboratory equipment. Ask researchers how often (or if) equipment is being used.
- Make a list of lab equipment that is no longer needed; see if items can be re-homed elsewhere in the building/campus. If that is not feasible, consider donation if possible.
- If reuse is not possible, work with facility management or your waste hauler to recycle or dispose of the equipment properly.
- Make sure all safety equipment is unobstructed and not blocked (e.g., safety showers, eyewash stations, emergency exits etc.).

Lab Supplies

Are boxes and lab supplies overtaking your research space?

- Ensure benches are clear of extra glassware, chemicals, unused equipment, packaging, or other supplies. If supplies such as gloves, pipettes, tips, and or glassware are taking up research space, can they go into storage or be donated?
- Explore how you could reduce single-use lab waste (e.g., buying bulk pipette tips in bags and refilling racks to cut down on waste generated by single-use tip racks). Consolidate purchases across multiple labs to reduce packaging and single-use items.
- Modify your procedures to allow for more reuse (e.g., If sterile conditions are not necessary, can you reuse pipettes or reservoirs for water?).



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Work with sustainability or EHS staff to determine if any lab waste can be recycled.
Organizations such as **PolyCarbin** accept waste that is not taken by traditional waste haulers.
Do a little regional recycling research; you may have waste diversion options specific to your region, such as **GreenLabs Recycling** serving the Greater Boston area.

Chemicals

Does your laboratory have a chemical inventory, and is it up-to-date?

- Make sure chemicals are logged, dated, and tagged; keep a spreadsheet of chemicals and who uses them.
- Dispose of any expired or unwanted chemicals, samples, or biological materials. Refer to the chemical's Materials Safety Data Sheet (MSDS) or work with EHS staff to dispose them safely. Ensure that all chemicals in your inventory have an MSDS on file and that your inventory keeps MSDSs up-todate in an online database if possible.
- If you have surplus chemicals no longer needed in a particular lab, work with EHS staff to see if they can be safely redistributed or donated elsewhere.



Storage

Are lab benches, fume hoods, and active workspaces used to hold boxes, bags, or sample containers?

- Make sure closets and cold storage areas are cleaned out regularly; join the **International Freezer Challenge** to motivate researchers to empty and defrost freezers.
- If you must store chemicals in the laboratory space: keep **incompatible materials** separate; store chemicals appropriately, using secondary containment if needed; move chemicals away from the edges of benches or shelves; and never stack chemical containers nor store them directly on the floor. Check with EHS staff for best practices.
- Keep fume hoods clean and free of clutter; find other places for storage. Or consider making unused hoods a building shared resource or decommission them, working with EHS and facilities staff.
- Limit the overhead storage to lightweight, nonhazardous items. Never store hazardous materials above eye level.

For more information about the LabSavers campaign, visit **www.i2sl.org**. For an example of how one campus is conducting their lab clean-out, see the Caltech Green Labs Spring Clean Competition **website**. Or send us your sample materials to **info@i2sl.org**!



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