

Guidelines for Teaching Labs

To meet the special challenges posed within teaching labs, the Chemical and Physical Safety Committee (CPSC) has developed the following guidelines. To clarify, the following is intended to apply to wet labs which utilize hazardous materials or equipment beyond ordinary office or classroom equipment. It does not generally apply to computer labs. The intent of these guidelines is to provide clarification of the CPSC's expectations with regards to the safe operation and maintenance of these facilities. Please note that these guidelines are intended as a supplement to the Chemical Hygiene Plan, faculty committee instruction, and UCLA safety policy. Unless otherwise stated, it should be assumed that the research safety standards described by the Chemical Hygiene Plan, UCLA Radiation Safety Manual, UCLA Biological Safety Manual, UCLA faculty committees, and UCLA safety policies will be applied.

Definitions

- **Responsible Party (RP):** The principal investigator(s) or departmental staff who have been granted the ability to set policy for Teaching Labs by his/her academic department. RP's should be informed of their status by the academic department. A change in RP for a teaching lab should be communicated to EH&S via email to laboratorysafety@ehs.ucla.edu by department representatives. If no RP is appointed by the department then the department chair will be considered to be the RP. In cases where multiple RPs are appointed responsibility over the same space, they are not necessarily responsible for overseeing each other. Disputes between RPs should be arbitrated by the department. In cases where the responsible department is ambiguous, the responsibility shall lie with the highest ranking official within the unit that holds authority to approve use of the space.
- **Lab Instructor (LI):** The person who is primarily responsible for determining the course content and assigns work responsibilities to teaching staff. In some instances the lab instructor may also be the RP.
- **Teaching Staff (TS):** Usually a graduate student, research assistant or teaching associate (TA) who directly supervises students during lab classes. Teaching staff may also include LI's and Professors.
- **Student:** Undergraduate, graduate, or professional students who work in the labs for educational and training purposes. Students must also be enrolled in a course that holds classes in the teaching lab.
- **Teaching lab:** A room that is used primarily for teaching/training purposes and is not directly utilized for ongoing research efforts. Labs that are used for teaching AND research are regarded as research facilities. There must be a class associated with the location for it to qualify as a teaching lab.

- **Lab support:** Facilities that supply chemicals or equipment to teaching and research labs. This may include a chemical stockroom or equipment room. A teaching lab may or may not have lab support.
- **Hazardous materials:** Specifically this refers to any chemicals, biological materials, radioactive sources, and/or equipment that poses a risk to personnel health and safety.
 - **Hazardous chemicals:** Chemicals which are considered to be pyrophoric, flammable, corrosive, carcinogenic, acutely toxic, potentially explosive, or hazardous in some manner.
 - **Biohazards:** Agents known/suspected to be infected with microorganisms, human or primate cells, fluids, tissues or recombinant/synthetic nucleic acids.
 - **Radioactive materials:** Any material that is radioactive.

Responsibilities

- **Responsible Party:**
 - Ensure that Lab Instructors follow UCLA Campus safety rules/policies within the teaching labs.
 - Respond to complaints or reports of safety issues. Contact EH&S to assist with determining corrective action.
 - Resolve policy issues and lab operations that prevent campus safety rules from being implemented in a timely manner
 - Ensure that work can be conducted safely within the teaching labs.
 - Teaching labs are NOT exempt from the requirements to have pre-approval for some types of work. Work that requires pre-approval from a UCLA Committee or EH&S Department (such as the Institutional Biosafety Committee, the Animal Research Committee, the Radiation Safety Committee, etc.) must be approved by the appropriate committee(s) before the RP can allow such work to be conducted within the teaching labs. See below for details.
 - RPs are responsible for maintenance of safety equipment such as fume hoods, biological safety cabinets, general room ventilation, etc. within the facility
- **Lab Instructor:**
 - Ensure that all chemicals, materials and equipment are safe to use for the intended purpose in the teaching lab
 - Maintain teaching lab facilities in an acceptable and safe condition for the intended classroom activity. Respond to issues reported by the TS for correction.
 - Ensure that appropriate and suitable PPE are used for all persons directly engaging in classroom activities. Respond to issues reported by the TS for correction. Provide training to TS and students on proper PPE use and maintenance, this may be done as part of lab-specific training.
 - PPE for students may either be supplied by the LI/RP, supplied by students, or any combination of the two
 - The LI and TS are responsible for determining whether or not student-supplied PPE is suitable for the work being done
 - Ensure that TS have working experience with the procedures they are responsible for teaching in the teaching labs.

- Ensure that TS have read and signed all applicable Standard Operating Procedures (SOPs) and other lab safety documents. TS who have previously taught a course for which the SOP and other documents are applicable do not have to re-sign the documents providing no changes have been made to the document and/or the lab protocol.
- Maintain records of student safety training for classes held in the teaching labs.
- Respond to complaints or reports of safety issues in a timely manner. Contact EH&S as necessary to assist with determining corrective action.
- Ensure the safety of TS, students and visitors that may attend teaching lab classes.
- Report all safety issues and concerns to the RP and advise remediation progress until correction.
- Work closely with RP to ensure safety needs are met especially with regards to emergency response/reporting.
- **Teaching Staff:**
 - Ensure that teaching lab facilities are in an acceptable and safe condition for the intended classroom activity. Report issues to the LI for correction.
 - Ensure that necessary, appropriate and suitable PPE is available for all persons directly engaging in the classroom activities. Advise LI of requirements and report issues to the LI for correction.
 - Ensure that students follow all safety rules/practices established by the LI. The TS may impose additional rules as needed but should do so in consultation with the LI. In cases where the lab instruction is conducted within a CORE facility, all safety rules/practices required by the core facility must also be followed.
 - Allow no student to work on unauthorized projects in a teaching lab. In cases where the lab instruction is conducted within a CORE facility, the TS or LI is responsible for providing supervision of the students.
 - Report any issues (damaged equipment, missing chemicals, operational spills, etc.) to LIs. TS should respond to issues as appropriate based on guidance from the LI.
 - Provide proof of UCLA Lab Safety Fundamental Concepts (LSFC) training and current valid UCLA safety training in the area they are teaching to the LI before beginning work in the teaching lab. Additional details below.
- **Student:**
 - Follow all safety rules/practices specified by the TS and/or LI.
 - Wear PPE appropriate to the work being done in accordance with UCLA Policy 905. Guidance on when and what PPE is needed should be provided by TS or LI.
 - Immediately report any safety issues or concerns to TS or LI.

Training Requirements

- **Responsible Party:**

The RP must complete the following training:

 - Lab Safety for PIs and Lab Supervisors training and/or have current Online Refresher training.

- Other training may be required for work with materials that require pre-approval (ex. biohazards, radioactive materials, live animals, etc.) Please see the UCLA training matrix: <https://ucla.app.box.com/ehs-lab-training-matrix>.
- **Lab Instructor/Teaching Staff:**

The Lab Instructor and Teaching Staff must complete the following training:

 - UCLA Lab Safety Fundamental Concepts (or Lab Safety for PIs and Lab Supervisors) training and/or have current Online Refresher training. TS are responsible for reporting his/her training status to LIs. LIs should maintain documentation of proof of training.
 - Read and sign any Lab Safety Orientation documentation. This only needs to be done once for each new TS. Returning TS do not have to resign provided that there have been no changes to the locations of emergency equipment.
 - Read and sign the teaching lab LHAT. Both TS and LIs must sign these documents. TS who have previously taught a course for which the LHAT is applicable do not have to re-sign the LHAT providing no changes have been made to the document and/or the lab protocol(s).
 - Read and sign Standard Operating Procedures (SOPs) and associated lab safety documents. TS who have previously taught a course for which the SOP is applicable do not have to re-sign the SOPs and documents providing no changes have been made to the document and/or the lab protocol(s).
 - Other training may be required for work with materials that require pre-approval (ex. biohazards, radioactive materials, live animals, etc.) Please see the UCLA training matrix: <https://ucla.app.box.com/ehs-lab-training-matrix>.
- **Student:**

The Student must complete the following training:

 - Lab-specific orientation training for the teaching lab where they will be performing work. TS taking roll on the day of training is acceptable evidence of training. This training is to include the location of emergency equipment (showers, eyewashes, first-aid kit, extinguishers, etc.), evacuation routes and emergency procedures. LI should maintain records that students have been provided this training.
 - Equipment and/or process-specific training for the class being taught. TS taking roll on the day of training is acceptable evidence of training. LI should maintain records that students have been provided this training.
 - These training requirements may be met through any combination of online or in-person training sessions.
 - Students who have not completed these trainings or did not attend these trainings may be asked to leave the lab.

Hazardous Material and Equipment Storage

- **Responsible Party:**

- Ensure proper storage of hazardous materials and equipment storage within the teaching labs in accordance with the Chemical Hygiene Plan, UCLA Radiation Safety Manual, UCLA Biological Safety Manual, UCLA faculty committees, and UCLA safety policies
 - Maintain an up-to-date inventory of hazardous materials and equipment owned or used by the teaching labs. (May be managed by either the LI or the RP as determined by Department Administration)
 - Respond to complaints, concerns and reports of hazardous material or equipment safety issues. Contact EH&S for assistance with determining corrective action.
- **Lab Instructors:**
 - Ensure proper storage of hazardous materials and equipment in the teaching labs in accordance with the Chemical Hygiene Plan, UCLA Radiation Safety Manual, UCLA Biological Safety Manual, UCLA faculty committees, and UCLA safety policies. Report complaints, concerns and reports of hazardous material or equipment safety issues to the RP.
 - Maintain an up-to-date inventory of hazardous materials and equipment owned or used by the teaching labs. (May be managed by either the LI or the RP as determined by Department Administration)
- **Teaching Staff:**
 - Ensure that all of the hazardous materials and equipment used in the process of teaching are returned to the LI for proper storage
 - Inform Students/Lab Support of improper storage of hazardous and equipment and ensure that issues are corrected
 - Report instances of improper storage as needed to LIs

Incident reporting

Spills, injuries, or other significant incidents can occur at any time. Immediate abatement of the hazardous condition, evacuation of the work area, or first aid treatment are of primary concern. After such immediate steps are taken, personnel are required to report these incidents to supervisors and EH&S. Please do not hesitate to contact EH&S if you suspect that an incident requires additional attention as there is no penalty for over-reporting. If you have doubts as to whether or not another party has reported the incident, please feel free to report to EH&S. Never assume that someone else has reported an incident.

Students should report all incidents to the LI or TS who in turn should report these incidents to EH&S. LI or TS should also notify the RP and his/her academic department as needed. Examples of reportable instances include, but are not limited to, the following:

- Chemical, biohazardous, and/or radioactive material spills
- Loss of biocontainment (includes loss of negative pressure)
- Exposures to any hazardous materials
- All serious injuries (amputation, burn, concussion, fracture, laceration requiring stitches, hospitalization, etc.)

- Fires
- Missing or stolen hazardous materials

Additional notes on pre-approvals

- Teaching labs are NOT exempt from the requirements to have pre-approval for some types of work. Work that requires pre-approval from a UCLA Committee or EH&S Department (such as the Institutional Biosafety Committee, the Animal Research Committee, the Radiation Safety Committee, etc.) must be approved by the appropriate committee(s) before the RP can allow such work to be conducted within the teaching labs.
- Courses that use of biohazardous materials, radioactive materials, live animals, and/or lasers will likely require pre-approval
- LIs who intend to use these materials must obtain approval from the appropriate UCLA Faculty Committee and/or EH&S Department, they must also include the teaching facility as a location on the applications. As such, it is highly recommended to discuss the proposed work with the RP prior to submitting an application.
- LIs should consult with the RP to determine whether or not the teaching lab can accommodate work with new agents, chemicals, hazardous materials or equipment prior to use or handling by TS or Students.
- RP should consult with EH&S if there are questions related to any processes once they have been notified by the LI of the intent to perform the requested work
- It is highly recommended that copies of all relevant Committee approvals are filed and maintained as reference information to LIs of the type of agents, equipment, personnel and procedures that have been pre-approved for the teaching labs

Questions can be sent to: cpsc@research.ucla.edu

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