

LABORATORY INSTRUCTOR SAFETY CHECKLIST

The [UC Safety Offices](#) can assist instructors managing health and safety in their teaching spaces.

Here is a short checklist highlighting some of your major responsibilities at UC as an instructor of classes involving hazardous (chemical, biological, radioactive) materials.

PREPARING FOR CLASSES

<input type="checkbox"/>	Risk Assessment: Conduct thorough risk assessments and establish written Standard Operating Procedures for all experiments that incorporate hazardous materials, equipment, or conditions.
<input type="checkbox"/>	<p>Safety Equipment: Ensure all safety equipment is available, tested, and maintained in functional condition:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Eyewash Stations* <input type="checkbox"/> Emergency Showers** <input type="checkbox"/> Fume Hood * <input type="checkbox"/> Biosafety Cabinet – Annual certification managed by UC departments/programs <input type="checkbox"/> First Aid Kit <input type="checkbox"/> Spill Kit – Appropriate spill kits for hazards present <input type="checkbox"/> Fire Extinguisher ** <p>* Managed by EH&S Office ** Managed by UC Facilities Management</p>
<input type="checkbox"/>	<p>Institutional Oversight: Register activities with the appropriate UC committee, if classes involve the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vertebrate Animals - Institutional Animal Care and Use Committee (IACUC). Contact the IACUC Office for info. <input type="checkbox"/> Radioactive Materials and/or Radiation Generating Equipment - Radiation Safety Committee. Contact the Radiation Safety Office for information.
<input type="checkbox"/>	Labelling of Secondary Containers: All cultures, chemicals, disinfectants, and media should be clearly labeled with their names. If they are hazardous, label them with proper warning symbols.
<input type="checkbox"/>	Safety Signage: Prepare, maintain, and post proper signage (e.g. hazard symbols, no food/drink signs, door signage , lab accident poster).
<input type="checkbox"/>	PPE: Select and provide proper personal protective equipment (PPE) for all lab activities.
<input type="checkbox"/>	Order biological and chemical waste containers.
<input type="checkbox"/>	<p>Ensure that all UC employees (e.g. instructors) take the following annual training *:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Hazard Communications, if working with chemicals <input type="checkbox"/> Bloodborne Pathogens, if working with human-derived materials (e.g. blood, cells) <input type="checkbox"/> EPA Hazardous Waste Training, if generating waste <p><i>*Trainings are also strongly recommended for students.</i></p>

GENERAL SAFETY

<input type="checkbox"/>	When classes start, students should be informed of applicable safety precautions and equipment. That should include the following: <ul style="list-style-type: none"> <input type="checkbox"/> Safe handling of hazardous materials <input type="checkbox"/> Use of PPE <input type="checkbox"/> Access to and how to use Safety Data Sheets (SDS) <input type="checkbox"/> Location of eyewash stations, emergency shower, SDS for chemicals, First-aid kits and Spill kit. A map can be created indicating those locations and posed in the room <input type="checkbox"/> The appropriate response to emergencies emphasizing the importance of reporting accidental spills and exposures
<input type="checkbox"/>	Have students sign a safety agreement assuring that they have been informed about safety precautions and the hazardous nature of the materials that will be handled in class.
<input type="checkbox"/>	Advise immune-compromised students (including those who are pregnant or may become pregnant) and students living with or caring for an immune-compromised individual to consult physicians to determine the appropriate level of participation in the laboratory.
<input type="checkbox"/>	Keep door closed while the laboratory is in session. Laboratory instructor approves all personnel entering the laboratory.
<input type="checkbox"/>	All cultures, chemicals, disinfectants, and media should be clearly labeled with their names. If they are hazardous, label them with proper warning symbols.
<input type="checkbox"/>	Ensure students are supervised during experiments, especially when using hazardous materials.
<input type="checkbox"/>	Enforce strict no eating, drinking, nor chewing gum policy in the lab.
<input type="checkbox"/>	While wearing gloves, students must not touch lab common use surfaces (e.g. phones, door handles). Gloves must be removed before leaving the laboratory.
<input type="checkbox"/>	Do not leave a heat source (hot plate or Bunsen burner) unattended. Keep containers of alcohol, acetone, or other flammable liquids at a safe distance from flames. Loose hair, clothing, dangling jewelry, and nearby paper must be secured whenever working with flames.
<input type="checkbox"/>	At the end of each class, ensure no hazardous materials or equipment are left unattended and that the lab is secure.

CHEMICAL SAFETY

<input type="checkbox"/>	Consider using less hazardous alternatives when possible.
<input type="checkbox"/>	Maintain a current chemical inventory .
<input type="checkbox"/>	Segregate chemicals by physical hazard class and store them in appropriate cabinets and locations. See SDS for more information on hazards and storage recommendations and contact EH&S with questions (513-556-4968).
<input type="checkbox"/>	Provide access, physical or digital, to SDS for all chemicals within laboratory spaces to all personnel involved in classes.
<input type="checkbox"/>	Maintain a chemical spill kit for responding to minor spills.

<input type="checkbox"/>	Quantities of chemicals present in teaching labs must be limited to the lowest possible level necessary. The minimum amount of chemicals needed to perform the experiment must be transferred to small, appropriately labeled, sealable bottles.
<input type="checkbox"/>	Containers of chemicals can only be opened in the classroom when experiments are being performed.
<input type="checkbox"/>	Experiments involving materials that produce chemical fumes, vapors, particulates, or gases must be performed in a chemical fume hood.

BIOLOGICAL SAFETY

For classes involving biological hazardous materials (e.g. bacteria, fungi, viruses, human-derived materials)

<input type="checkbox"/>	Use Risk Group (RG) 1 microbial agents whenever possible. Consult the RG database for the Risk Group classification of some agents.
<input type="checkbox"/>	Only use microbial cultures from authorized, commercial, or reputable sources.
<input type="checkbox"/>	Maintain and make available (e.g., in a syllabus, in a laboratory manual, or online) to all students a list of all microbial cultures (and their sources) used in the class.
<input type="checkbox"/>	Class notes, pens and markers should be kept inside the lab.
<input type="checkbox"/>	Keep personal belongings separated from work area (backpacks, keys, coats and electronic devices). Cell phones may be placed inside sealable plastic bags and used to take images of class notes. Plastic bags should be disinfected/decontaminated before removing cell phones.
<input type="checkbox"/>	Work surfaces should be properly disinfected before and after classes. For lab benches, you can use a freshly prepared 10% bleach solution.
<input type="checkbox"/>	Whenever possible, use micro-incinerators or disposable loops rather than Bunsen burners. Bunsen burners are not permitted inside biological safety cabinets.

HAZARDOUS WASTE

<input type="checkbox"/>	Ensure that biological and chemical waste containers are properly labeled and available in the classroom. <i>Contact EH&S to obtain labels.</i>
<input type="checkbox"/>	Establish clearly marked waste collection points in the lab for different hazardous waste streams.
<input type="checkbox"/>	Dispose of chemicals known to degrade over time as hazardous waste prior to expiration date.
<input type="checkbox"/>	Contaminated sharps, including coverslips, slides, glass and plastic pipets and pipet tips, and Pasteur pipets, are discarded immediately or as soon as possible in sharps containers that are closable, puncture-resistant, leakproof on sides and bottoms, and labeled or color-coded appropriately.
<input type="checkbox"/>	When hazardous waste containers are $\frac{3}{4}$ full or when the academic semester ends , submit a pickup request for infectious and/or chemical waste.
<input type="checkbox"/>	Ensure all chemical waste containers in use are properly labeled. Only approved containers are to be used for storage of chemical used in the lab and chemical waste containers. Print large or small labels.