



# Laboratory Instructor Safety Responsibilities

The Department of Environmental Safety, Sustainability and Risk (ESSR) can help provide resources to assist instructors managing health and safety in their teaching spaces. Here is a short checklist highlighting some of your major responsibilities at UMD as an instructor.

## Responsibilities of the Instructors

- Adhere to the University of Maryland's [Expectations for Conducting Safe Research](#).
- Provide and maintain a safe work environment for all students and teaching assistants.
  - Flush eye wash stations weekly and document testing [blank test cards are available at [ChemStores](#).]
  - Submit work orders to Facilities Management ([Online](#), Phone: 5-2222) when building facilities (e.g., fume hoods, eye wash stations, electrical outlets) appear to be broken or not working appropriately.
  - Arrangements for annual certifications for fume hoods are managed by ESSR on a rotating schedule.
  - Arrangements for annual certifications and service of biosafety cabinets must be made by the laboratory. See ESSR website on [Biosafety Cabinets](#) for more information.
- Conduct thorough risk assessments and establish written Standard Operating Procedures for all experiments that incorporate hazardous materials, equipment, or conditions. See ESSR's [Teaching Labs](#) page for more information.
- Provide a safety briefing prior to the start of each experiment to review the hazards of the materials and processes used, the personal protective equipment required, and a review of emergency procedures.
- Notify ESSR prior to:
  - Use of chemicals in a process that may present a hazardous condition due to inadequate ventilation.
  - Treatment or disposal of hazardous waste, other than standard submission through the ESSR waste system.
  - Making any building modification to plumbing, electrical, ventilation, or structural systems.
- Ensure that all personnel take the following training:
  - Laboratory Teaching Assistants (online)-*instructors and TAs*
  - Chemical Hygiene (online)-*instructors and TAs*
  - Laboratory Exposure Controls (online)-*instructors and TAs*
  - New Laboratory Researcher (in person)-*TAs only*
- Contact 301-405-3333 or 911 for all emergencies. Use Emergency Response Guide procedures to respond to incidents.
  - When sending students to University Health Center, call the University Health Center to let them know someone is on their way and send a second student to escort them.
  - Report any safety related incidents to ESSR using the online Incident Reporting & Investigation forms.
  - Work-related injuries involving paid teaching assistants must have [First Report of Injury](#) forms (forms require information to be submitted by the employee, supervisor, and any witnesses) submitted within 24 hours.
- Ensure information on hazard warning signage (yellow signs at the door to the laboratory) and posted Emergency Response Guide flip charts is current and accurate.
  - See information on updating signage on our [Laboratory Warning Signs](#) page. If you do not have access to update the signage in SciShield, please contact [labsafety@umd.edu](mailto:labsafety@umd.edu).
  - If you do not have an Emergency Response Guide flip chart, visit [ChemStores](#) for a free copy.
- Register research, as necessary, with appropriate institutional body. Includes, but is not limited to:
  - Research involving human material (including cell lines), infectious and/or recombinant material must be registered through the Institutional Biosafety Committee. Contact [biosafety@umd.edu](mailto:biosafety@umd.edu) for more information.
  - Research involving radioactive materials or radiation producing devices must be registered with the Radiation Safety Committee. Contact [radiationsafety@umd.edu](mailto:radiationsafety@umd.edu) for more information.
  - Research involving animals must be registered through the Institutional Animal Care and Use Committee (IACUC). Contact [iacuc@umd.edu](mailto:iacuc@umd.edu) for more information.
  - Research involving human subjects must be registered through the Institutional Review Board. Contact [irb@umd.edu](mailto:irb@umd.edu) for more information.

## Chemical Safety

- Abide by all elements of the [University of Maryland Chemical Hygiene Plan](#), including requirements for developing laboratory specific information.
- Provide access, physical or digital, to Safety Data Sheets for all chemicals within laboratory spaces to all personnel.
- Segregate chemicals by physical hazard class and store in appropriate cabinets and locations. See Safety Data Sheets for more information on hazards and storage recommendations. Contact [labsafety@umd.edu](mailto:labsafety@umd.edu) for additional guidance.
- Maintain a current chemical inventory.
- Maintain a chemical spill kit for responding to minor spills. Kits suitable for minor spills can be purchased at [ChemStores](#).
- Quantities of chemicals present in teaching labs must be limited to the lowest possible level necessary.
- Dispensing of bulk quantities of chemicals must be done in a prep area outside of the classroom. In existing labs with no prep room, dispensing must be performed prior to the arrival of students in the classroom.
- The minimum amount of chemicals needed to perform the experiment must be transferred to small, appropriately labeled, sealable bottles.
- Bottles of chemicals can only be open in the classroom when the experiment is being performed.
- Experiments involving materials that produce fumes, vapors, particulates, or gases must be performed in a chemical fume hood.

## Hazardous Waste

The Environmental Affairs Unit facilitates compliance with federal and state regulations related to hazardous waste. See our [Environmental Affairs page](#) for more information.

- Submit all hazardous waste through the [Regulated Waste pick-up system](#).
  - Green tags required for hazardous waste collection can be purchased at [ChemStores](#).
- Ensure that satellite accumulation areas are designated near the point of waste generation and are appropriately labeled. Satellite Area Accumulation signs and hazardous waste guidelines are available for free at [ChemStores](#).
- Dispose of chemicals known to degrade over time as hazardous waste prior to expiration date.
- Ensure that all waste is appropriately labeled.
  - Unlabeled/unknown waste is a violation of state regulations, and has a required fee of \$125 per container for ESSR to characterize and properly dispose. The lab and/or the department is responsible for this fee

## Biosafety

It is the mission of the Biosafety Group to ensure the protection of laboratory workers, the environment, and the community from exposure to biohazardous materials. See [our Biosafety page](#) for more information.

- Notify [biosafety@umd.edu](mailto:biosafety@umd.edu) prior to use of infectious agents, recombinant or synthetic nucleic acids, or unfixed human or non-human primate materials
- Ensure and abide by [Institutional Biosafety Committee](#) approved protocols.
- Maintain a current Biosafety Manual if research is BSL-2 or higher. Contact [biosafety@umd.edu](mailto:biosafety@umd.edu) for a template.
- Establish a research-specific exposure/spill response plan and ensure availability of emergency response kits.

## Radiation Safety

It is the mission of the Radiation Safety Group to facilitate the safe and responsible use of radioactive material and radiation producing machines on campus such that occupational and public exposures to ionizing radiation, and releases to the environment are maintained As Low As Reasonably Achievable (ALARA) and in compliance with the University's Radioactive Material Licenses with the State of Maryland. See [Radiation Safety page](#) for more information.

- Contact [radiationsafety@umd.edu](mailto:radiationsafety@umd.edu) prior to working with radioactive materials or radiation producing devices.

## Field Safety

The dynamic nature of field settings requires that instructors appropriately plan for potential hazards and emergencies. See our [Field Research Safety page](#) for more information and templates.

- Provide information about required field trips in syllabus.
- Identify and communicate field hazards to students and teaching assistants.
- Develop site-specific procedures for responding to emergencies.
- Conduct and document site-specific training for field activities.
- Ensure field trip groups have first aid kits and a means of emergency communication.