

## Institutional Chemical Hygiene Plan (ICHP)

### Intent:

The purpose of this program is to develop as general guidance document listing the universal safety requirements needed to work in any UW-Eau Claire science laboratory. This (ICHP) sets forth policies, procedures, equipment, personal protective equipment, and work practices that can protect University personnel and students from the health and safety hazards inherent in laboratories.

### Scope:

All departments within the University of Wisconsin Eau Claire must have a chemical hygiene plan that is specific for each department which contains a laboratory. Laboratories may include but are not limited to academic, research, and any other situations where hazardous chemicals or substances are used. The requirements of the (ICHP) apply to all personnel who work in University of Wisconsin Eau Claire laboratories that have chemical and/or physical hazards.

### Definitions:

The definitions listed below are taken directly from the OSHA Lab Standard 29 CFR Part 1910.1450(b)

**Chemical Hygiene Officer (CHO):** An employee designated by the University who is qualified by training or experience, to provide technical guidance in the development and implementation of the provisions of the Chemical Hygiene Plan.

**Chemical Hygiene Plan (CHP):** A written program developed and implemented by an employer which sets forth procedures, materials, personal protective equipment (PPE), and work practices that (i) can protect employees from the health hazards presented by hazardous chemicals used in that workplace and (ii) meet the requirements of the Lab Standard.

**Emergency:** Any occurrence such as, but not limited to, equipment failure, rupture of containers or failure of control equipment that results in an uncontrolled release of hazardous chemicals in the workplace.

**Hazardous Chemical:** A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees.

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**Health Hazard:** A term that includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic systems, and agents which damage the lungs, skin, eyes, or mucous membranes.

**Institutional Chemical Hygiene Plan (ICHP):** A campus wide safety guide for laboratories to assist with the recognition, evaluation, control of chemical and physical hazards. This plan is to be used alongside the chemical hygiene plan.

**Laboratory:** A room or space or field site equipped with chemical, biological, radiological, or other hazardous materials, research animals, or mechanical equipment, that is used for teaching, research, observation, or measurement. For the purposes of this policy, it is intended to include academic, research, teaching, conservation, engineering labs, and shops exclusively operated for these purposes and is not intended to include labs, storerooms, mechanical rooms, or shops used to support operations.

**Laboratory Personnel:** Faculty, staff, graduate students (i.e., teaching assistants, research assistants, and laboratory assistants), contractors, and visitors performing duties or tasks physically situated in a UW-Eau Claire laboratory facility.

**Laboratory Supervisor:** The Laboratory Supervisor may include the Principal Investigator (PI) or Laboratory Manager or Supervisors, Lab Safety Officer, Instructors, or Administrative Supervisors who, under the direction of the PI, have responsibility and oversight for laboratory functions.

**Personal Protective Equipment (PPE):** Equipment to protect the eyes, face, head, and extremities. Including (but not limited to) protective clothing, hearing protection, respiratory devices, and protective shields and barriers.

**Physical Hazard:** A chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water reactive. In general, electrical, Heat, LASER, and energetic material.

**Principal Investigator (PI):** A faculty member or academic staff person (assistant professor, associate professor, professor, lecturer, etc.), a research professional, an academic professional, or laboratory director who supervises projects and instructional activities within laboratory or laboratories using chemicals or hazardous materials.

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### Procedures

The appropriate work practices and procedures are in place to protect laboratory employees from chemical health and safety hazards. The (ICHP) contains procedures for working safely with chemicals as well as plans for emergency situations.

### Responsibilities

#### Risk Management, Safety and Sustainability (RMSS)

Step	Responsibilities
1	Be responsible for ensuring the development & implementation of this policy.
2	Provide necessary resources as available to carry out the program.
3	Develop and administer plans, policies, and procedures that meet safety and regulatory compliance requirements for laboratories.
4	Provide adequate and appropriate training in laboratory safety to personnel commensurate with the duties they perform.
5	Review and revise the (ICHP) at a minimum on an annual basis.
6	Conduct annual inspection of laboratories with the Chemical Hygiene Officer (CHO) and/or Principal Investigator (PI).
7	Work with the department chairperson to ensure compliance with the (ICHP).
8	Provide technical assistance in all matters of laboratory safety; and assist laboratory personnel with the evaluation and control of laboratory hazards and regulatory compliance. Contact EHS Manager for further information.
9	Work closely with Facilities regarding construction and renovation of laboratory facilities.

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10	Manage safety equipment inspection to include Automated External Defibrillators (AED), fire extinguishers, emergency showers and eyewashes, chemical fume hoods, and biosafety cabinets.
11	Maintain records including inspection forms, training logs, spill reports, accident reports, safety data sheets (SDS), and inventory records.

### Department Chair

Each Department Chair has the responsibility for making sure all instructional and research laboratory work and activities in their department are safe. Additional responsibilities of the department include the following:

Step	Responsibilities
1	Faculty and laboratory managers shall work as a liaison with the Chemical Hygiene Officer and the EHS Manager to ensure compliance.
2	Provide budgetary support to ensure compliance including adequate (PPE) and training if required for department specific activities
3	Inform employees, affiliates, students, and volunteers in their departments of University laboratory safety policies and procedures.
4	Meet with the faculty members to discuss and correct the cited violations included in annual and other lab inspection reports
5	Notify the (CHO) when new faculty are hired for orientation training. Training may include safety discussion points or a checklist.

### Chemical Hygiene Office (CHO) for each department

Step	Responsibilities
1	Work within each academic department to manage the day-to-day Environmental, Health, and Safety (EHS) activities and to ensure that campus complies with applicable regulations and lab safety programs
2	Communicate to the safety committee and other members of the department as needed.
3	Work with the PI/LS on the approval process for the purchase of highly toxic, reactive, carcinogenic, or other inherently hazardous materials.
4	Make sure the chemical inventory is up to date and maintain the SDS online through ChemWatch, as well as product and hazardous waste storage areas within the department. Other activities include labeling and disposing of chemicals properly.
5	Conduct annual inspection of laboratories and submit the results to the Department Directors. <b>See Appendix B.</b>
6	Assist PI/LS in evaluating and controlling laboratory hazards.
7	Serve as an emergency contact and responder for their department.

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### Biology Safety Officer (BSO)

The BSO administers the Biological Safety Program. Specific responsibilities are to:

Step	Responsibilities
1	Provide technical guidance in the development of policies and procedures regarding the use of biological materials in laboratories.
2	Provide training on the hazards associated with biological materials in the workplace and appropriate measures to reduce the risk posed by these hazards.
3	Inspect biological laboratories to assist in compliance with laboratory safety policies and procedures.
4	Assist PI/LS in evaluating and controlling biohazards.
5	Oversee management of biological waste, serve as the primary point of contact with any regarding regulated medical waste.
6	Oversee certification of biosafety cabinets.

### Radiation Safety Officer (RSO)

The RSO administers the University's Radiation Safety Program. Contact the EHS Manager for further information. Specific responsibilities are to:

Step	Responsibilities
1	Maintain current knowledge of laboratory safety regulations and guidelines.
2	Provide technical guidance in the development of policies and procedures regarding radiation safety.
3	Inspect radiation laboratories to monitor compliance with laboratory safety policies and procedures.
4	Assist PI/LS in evaluating and controlling radiation hazards.

### Laboratory Personnel (includes faculty, staff, and students)

Step	Responsibilities
1	All laboratory personnel will read, understand, and follow all safety rules, the institutional and department chemical hygiene plans, any required safety training materials, and any specific instructions provided by the PI and regulations that apply to the workplace
2	Assist laboratories to complete safety training by the CHO and sign a safety agreement that assures that they understand and agree to follow the (ICHP)
3	Comply with specific behavior outlined in the (ICHP) always including the wearing of the appropriate (PPE), good housekeeping practices, proper laboratory conduct, and the immediate communication of any spills, illnesses, and accidents

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### Principal Investigator and/or Laboratory Supervisor (PI/LS)

PI/LS are responsible for overseeing all laboratory work, activities, and employees in their laboratory. Specific responsibilities are to:

Step	Action
1	Provide information to all laboratory personnel regarding hazardous substances and other laboratory hazards. Instruct personnel in safe laboratory practices and procedures for dealing with these hazards.
2	Support the CHO and Department Chairs in the implementation of the (ICHP)
3	Set a good example to lab personnel by following safety guidelines and wearing proper PPE. <b>See Appendix A.</b>
4	Ensure that all personnel are properly supervised, or safety trained before they work in the laboratory
5	Ensure to the best of their ability that all personnel comply with the (ICHP) requirements
6	Review and approve new laboratory projects, tests, or procedures involving particularly hazardous substances before laboratory personnel initiate them. Ensure the PI knows what is always going on in the laboratory.
7	Implement appropriate access restrictions and requirements for visitors, volunteers, and minors
8	Work closely with Facilities Maintenance and EHS Manager to select, acquire, and install appropriate engineering controls prior to the commencement of the work that requires these controls.
9	Work closely with EHS Manager so that safety equipment is available, routinely inspected, and repaired or replaced, as necessary.
10	Properly characterize, label, and manage all waste generated in their labs
11	Monitor spill supplies and contact EHS Manager when additional supplies are needed. Contact EHS Manager if supplies need to be restocked. a. Communicate instances of spills, accidents, near-accidents, and unsafe work conditions to EHS Manager. b. The CHO and Department Chair shall coordinate emergency response if necessary. Serve as an emergency contact & responder for their department. c. Complete Spill and Accident Report Forms for incidents in their labs and send the completed forms to the EHS Manager.
12	Provide training to personnel who use the laboratory on hazardous chemicals and operations specific to the laboratory. This includes informing personnel on the location and availability of the SDS's.
13	Contact Facilities personnel or EHS Manager to report problems with laboratory facilities and work directly with the CHO or Department Chair to ensure laboratory compliance issues are resolved.

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### Facilities Services Personnel

Step	Responsibilities
1	All Facility members who work or may work in any laboratory or studio will be trained by the RMS on (ICHP) awareness and will obtain information about the workplace before any work is started. The training will include the following: <ol style="list-style-type: none"> <li>Hazard Communication with GHS training</li> <li>Hazardous Waste Training</li> <li>Laboratory and Fume Hoods Safety training</li> </ol>
2	All Facilities personnel will refuse to enter or render service to any laboratory in an unsafe condition and will report findings to their immediate supervisor

### General Lab Safety Requirements

Step	Action
1	If a student wishes to study and/or work in a laboratory where no hazardous substance or procedure is involved, the student may do so at any hour of the day without a partner, but the student must abide by the general safety rules outlined in this plan.
2	Personnel are not permitted to play loud music or wear headphones/earbuds while working with hazardous materials or processes in the laboratory.
3	Visitors are permitted in the laboratory if they are wearing the correct PPE and escorted by trained authorized personnel. However, student researchers and outside of UWEC staff and faculty must sign <b>Appendix C</b>
4	When working with particularly hazardous substances that include select carcinogens, reproductive toxins, and substances which have a high degree of acute toxicity, the (PI) must monitor safety in the designated area, use appropriate PPE and containment devices, establish safe removal of contaminated waste, and employ decontamination procedures for both people and work surfaces.
5	Students must be orientated by a faculty member before working independently (limited supervision) with a new chemical, procedure, or equipment.
6	Lab personnel must know the location of all the safety equipment & the spill kit in their workspace & how to use it properly before working independently in the lab.

**Note:** See Individual Department's CHP for more information.

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### Laboratory Chemical Hoods

Laboratory chemical hoods are one of the most important components used to protect personnel from exposure to hazardous chemicals and other harmful agents. The hoods are inspected by Facilities annually to verify proper function.

Step	Action
1	The hood exhaust fan is on and kept on during the time it takes to work with hazardous substances.
2	If possible, always use the hood sash at the designated position (found on the front face of the hood). This assures proper face velocity. Work is performed by extending the arms under the sash while keeping the head outside of the sash.
3	To reduce turbulence and reduction of air flow, move the sash up and down slowly and avoid rapid body movement when in front of the hood.
4	Work at least <b>6 inches</b> inside of the hood. This assures that the highest concentration of the contaminant is away from the face of the person and the hood.
5	Notify the immediate supervisor or responsible faculty member to submit a work order to Facilities to have the hood repaired if the hood does not work properly.
7	When leaving reactions unattended in the hood, be sure that the equipment is secured, and the hood is well labeled with specific details regarding the chemicals involved and your contact information.

### Equipment Specific Lab Safety Requirement

Step	Action
1	<b>Requirements for Personal Protective Equipment</b> Always wear appropriate footwear. Bare feet, open toed shoes, or sandals are not allowed. Footwear must be closed toe, closed heel. <b>See Appendix A. PPE Standards</b>
2	<b>Requirements for Personal Hygiene</b> Eating, drinking (including water), chewing gum, applying makeup or lip balm and smoking are prohibited in laboratories or storage areas. a. Never store food or drinks for human consumption in a lab freezer or refrigerator. b. Food and drink may be place outside of the lob door if necessary.

**Note:** See Individual Department's CHP for more information.



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### Prior Approval of Operations

Each laboratory supervisor and/or PI should identify operations that require their prior approval before the procedure is initiated. Some situations that should be considered for prior approval include:

Step	Action
1	A new laboratory procedure that represents greater than routine risk (especially if it differs substantially from procedures already in use).
2	Operations where it is likely that there will be significant exposure to a chemical or other hazard (biological, physical, etc.)
3	There is a procedural change that significantly increases the overall hazard of the procedure.
4	Unattended operations that represent significant likelihood of fire, explosion, or exposure to personnel if a malfunction were to occur (such as a utility outage, runaway reaction, or chemical spill).

### Working Alone Plan

The academic departments lab safety is required to develop (CHP) that include a methodical safe working system for employees who work alone or in isolation. Although there is no specific format for a Safe Working System, it should address the following information:

Step	Actions
1	Name of individual or job positions that are required to work alone. See <a href="#">Working in Isolation Eform</a>
2	Identification of the hazards and risks associated with the work activities and/or the environment where the work is to be performed.
3	Identification of which type of activities may be conducted while working alone and stating any limitations and/or prohibitions on certain activities.
4	Implementing control measures to eliminate or reduce the risks of injury or harm, and ensure they are monitored and reviewed on an ongoing basis.
5	Ensuring the worker understands the hazards that may be associated with the work and the procedures that should be followed to reduce risk.
6	Establishing the frequency of regular communications and identifying who is responsible for establishing contact.

**Note:** See Individual Department's CHP for more information.

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### Chemical Spill Procedures

When a chemical spill occurs, it is necessary to take prompt and appropriate action. The type of response will depend on the quantity of the chemical spilled and the severity of the hazards associated with the chemical.

Step	Actions
1	<p>Many chemical spills can be safely cleaned up by laboratory staff without the help of the EHS Manager.</p> <ol style="list-style-type: none"> <li>a. Only individuals that are trained and equipped with the proper spill cleanup materials and PPE should attempt to clean up incidental spills unless the spill is minor and can safely be managed by the individual.</li> <li>b. An individual who is uncomfortable responding to a large spill should contact EHS Manager.</li> <li>c. Hazardous chemical or unknown material spill should only be handled by trained users.</li> </ol>
2	<p><b>Hazardous Chemical Spills</b></p> <p>In the event of a spill of a hazardous (mercury, volatile, toxic, corrosive, reactive or flammable) chemical, the following procedures should be followed:</p> <ol style="list-style-type: none"> <li>a. If there is fire, pull the nearest alarm. If you are unable to control or extinguish a fire, follow the fire evacuation procedures.</li> <li>b. If the spill is in a laboratory, shop, or chemical storeroom: <ul style="list-style-type: none"> <li>• Evacuate all personnel from the room if the situation becomes unsafe</li> <li>• Be sure the hood/local exhaust is turned on</li> <li>• If flammable liquids are spilled, disconnect the electricity to sources of ignition if possible</li> <li>• If mercury thermometers are broken, do not dispose in the general trash. Contact EHS Manager for additional assistance</li> <li>• Call the campus emergency at 836-2222 to request additional assistance if you cannot manage the clean-up yourself.</li> </ul> </li> <li>c. If the spill is in a corridor or other public passageway: <ul style="list-style-type: none"> <li>• Evacuate all people from the area &amp; close off the area to keep others out.</li> <li>• Call the emergency at 836-2222 to have the air system in the area shut down (to prevent contamination of other areas) and to request additional assistance.</li> </ul> </li> </ol>

**Note:** See Individual Department's CHP for more information.

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### Spill Response and Clean-up Procedures

In the event of a chemical spill, the student, staff, or faculty is responsible for prompt and proper clean-up. Contact the EHS Manager for assistance if necessary. The following are general guidelines for a chemical spill.

Step	Actions
1	Immediately alert area occupants, supervisor, and evacuated the area if necessary. If there is a fire or medical attention is needed, contact University Police at 836-2222 and/or Public Safety at 9-911.
2	Attend to any people who may be contaminated. Contaminated clothing must be removed immediately, and the skin flushed with water for no less than (15) minutes.
3	If a volatile, flammable material is spilled, immediately warn everyone, control sources of ignition and ventilate the area.
4	Don personal protective equipment (PPE), as appropriate to the hazards. Refer to the Safety Data Sheet (SDS) or other references for information.
5	If the spill is large, if there has been a release to the environment or if there is no one knowledgeable about spill clean-up available, contact the EHS Manager, and/or University Police at 836-2222.
6	Protect floor drains or other means for environmental release. Spill socks and absorbents may be placed around drains, as needed.
7	Broken glassware which may potentially be contaminated shall be picked up using tongs, forceps, broom and dustpan, or other such device. a. At no time will employees pick up potentially contaminated broken glass with their bare hands. b. Protective PPE shall be worn during the cleanup, such as goggles and gloves for minor spills. Additional PPE such as a face mask and a lab coat shall be used for larger spills.
8	When spilled materials have been absorbed, use brush and scoop to place materials in an appropriate container. a. Polyethylene bags may be used for small spills b. Five-gallon pails or 20-gallon drums with polyethylene liners may be appropriate for larger quantities
9	For absorbed hazardous chemicals, label the container and dispose of through the <a href="#">Hazardous Waste Management</a> program.
10	Decontaminate the surface where the spill occurred using a mild detergent and water, when appropriate.
11	Report the spill to the immediate supervisor, university police, and the Office of the RMSS immediately.
12	Restock any spill cleanup supplies that may have used from any spill kits.

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### Housekeeping Requirements in the Lab

Step	Actions
1	Extension cords may be used to power portable equipment on a temporary basis.
2	Access to emergency equipment, showers, eyewashes, exits, and spill kits must never be blocked. In addition, keep all fire lanes free of equipment.
3	Unless designated, fume hoods, bench tops and floors are not to be used for long term chemical storage.
4	All laboratory waste must be properly disposed of at the end of each day by either transferring to a Satellite Accumulation Area (SAA) container.

### Laboratory Safety Inspection

EHS Manager has instituted a laboratory safety inspection program for all laboratories in the science, engineering, & technology areas. The inspection on an annual basis by EHS Manager to ensure compliance with federal, state, and university requirements.

Step	Actions
1	EHS Manager and/or CHO conduct annual inspections, issue reports, conduct re-inspections when deficiencies are noted, provide training & coaching on safety, and compliance in laboratories. <b>See Appendix B. Workplace Assessment Form for Laboratories.</b>
2	The laboratory may specify a date and time for the inspection to ensure someone is available to present during the inspection.

### Requirement for chemical labeling, transport, and storage

#### Chemical Labeling Requirements

Step	Actions
1	Primary containers must have an intact label as printed by the manufacturer. If the label has become damaged or missing on usable chemicals, review the Safety Data Sheet to determine the correct language and re-label the container.
2	Secondary containers used for long-term storage in laboratories must be marked with the product name, date, and responsible personnel.
3	Containers under the control of the laboratory personnel for the day do not have to be labeled.
4	Area placards may be used to label small containers or large quantities non-hazardous samples (i.e., water samples). a. Placards shall contain the material name, date, and responsible lab personnel. <b>NOTE:</b> See more details on <a href="#">Hazard Communication with GHS</a>

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### General Chemical Transport and Storage Requirements

The following lists general chemical storage and transporting requirements for all campus labs:

Step	Actions
1	Avoid storing chemicals on shelves higher than 5 feet (above eye level). If, due to space constraints, chemicals must be stored on high shelves, avoid overreaching and always use a stepstool to access the materials.
2	Store heavier materials on lower shelves.
3	Keep egress routes, passageways, areas under tables, and emergency equipment free of stored materials.
4	Provide a defined storage area for each hazard class. Observe all precautions regarding incompatible chemicals. Put the chemical back in the proper storage area when no longer needed.
5	Ventilated spaces should be used for volatile, toxic and/or odiferous chemicals.
6	Store chemicals in a labeled, closeable cabinet or on a labeled shelf. Flammables should always be stored in an approved flammable liquid cabinet or in flammable and/or explosion proof refrigerators.
7	Never store chemicals in a hood, on the floor, or on a bench top. Always put chemicals away at the end of the day.
8	Do not store chemicals in direct heat or light.
9	Dispose of old and/or expired chemicals, bottles with worn or missing labels, bottles with missing or broken caps, and bottles with any type of leakage including smell.
10	Use appropriate carts, plastic carriers, and PPE when transporting chemicals. If you borrow a cart or a carrier from any of the stockrooms, return it as soon as possible.
11	Use appropriate carts for transporting gas cylinders. Always use the chain to support the gas cylinder on the cart. Be sure that the cylinders are always stored and used in the upright position and securely fastened to the wall or bench top using a belt or chain support.
12	Store empty gas cylinders with the cap on, in the upright position. They must be securely fastened using a belt or chain, even when in a cage. All cylinders must be tagged "EMPTY, IN USE, or FULL".

**Note:** See Individual Department's CHP for more information.

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### Waste Management

Lab waste may fall into a few different categories and management requirements. It is the responsibility of the faculty member who oversees the laboratory to properly characterize and manage the waste generated in their labs. See [Hazardous Waste Management Policy](#) for more information.

Step	Actions
1	<p><b>Types of Laboratory waste:</b> The laboratory waste will fall under one or more of the following categories.</p> <ol style="list-style-type: none"> <li>Solid waste (trash and debris), hazardous waste</li> <li>Radioactive waste, biomedical waste</li> </ol>
2	<p><b>Hazardous Waste:</b> The properties of hazardous waste are defined as any substance that exhibits one or more of the following hazardous characteristics:</p> <ol style="list-style-type: none"> <li>IGNITABILITY (flash point less than 140F),</li> <li>CORROSIVE (pH less than 2 or greater than 12.5),</li> <li>REACTIVITY (reactive to water, shock, heat, pressure, or gives off toxic gases, or unstable and reacts rapidly or explosively), and/or</li> <li>TOXICITY (that which will leach more than a specified amount of heavy metals, pesticides, and carcinogens/mutagens).</li> </ol>
3	<p>Broken mercury thermometers do not go into the general trash, glass waste, or sharps waste. Place broken mercury thermometers in the designated container located in a satellite accumulation area (SAA). Contact EHS Manager for proper disposal of mercury contaminated waste.</p> <ol style="list-style-type: none"> <li>Mercury is a toxic heavy metal and is a hazardous waste.</li> <li>Non-mercury thermometers (these have red, blue, or green nontoxic liquid) can be disposed of in a sharps waste container.</li> <li>Do not put non-mercury thermometers in the general trash.</li> </ol>
4	<p>If you find a waste at your site that has no product information, please contact the CHO and/or the EHS Manager.</p> <ol style="list-style-type: none"> <li>Do not assume that the waste is nonhazardous.</li> <li>The SDS, bottle label, and manufacturer's information are also resources in determining if the laboratory waste is hazardous.</li> </ol>
5	<p><b>Universal Waste:</b> Universal waste is a specific sub-category of hazardous waste primarily related to waste generated during building maintenance and not typically generated by lab personnel. Examples include fluorescent lamps and certain types of heavy metal batteries.</p>

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### Laboratory Emergency

Step	Actions
1	<p><b>General Guidelines</b></p> <ol style="list-style-type: none"> <li>Call emergency personnel and describe the situation as best you can.</li> <li>In the event of an accident, do not leave the area until you have reported the accident to a faculty member or Security.</li> <li>All laboratory personnel should know what to do in the case of an injury, spill, fire, accident, and any other emergency. See <a href="#">Incident Report eform</a></li> </ol>
2	<p><b>Chemical Injury Response</b></p> <ol style="list-style-type: none"> <li>If an individual is injured or contaminated with a hazardous substance, the responder must tend to that individual before implementing spill control.</li> <li>For small areas of skin, immediately flush with flowing water for no less than 15 minutes.</li> <li>If an emergency eyewash or shower inspection is not completed in your area, contact the EHS Manager to arrange for completion.</li> <li>In the event of a chemical eye burn, the injured person must flush their eyes for 15 minutes in the emergency eyewash. Bystanders must immediately contact Security at 836-2222 to summon emergency assistance.</li> </ol>
3	<p><b>Emergency Safety Equipment</b></p> <ol style="list-style-type: none"> <li>Fire Extinguishers <ul style="list-style-type: none"> <li>All faculty/staff shall maintain clear access and visibility of fire extinguishers.</li> </ul> </li> <li>Fire Blankets <ul style="list-style-type: none"> <li>Fire blankets are available in selected labs where potential for fire exists due to use of solvents and other flammables.</li> </ul> </li> <li>Use of emergency eyewash <ul style="list-style-type: none"> <li>Pull or push the valve handle to dislodge the dust caps.</li> <li>Flush the eyes for no less than 15 minutes.</li> <li>Returning the valve handle to its original position to stop the flow of water. Resume flushing the eye if pain returns.</li> </ul> </li> <li>Use of an emergency shower <ul style="list-style-type: none"> <li>Quickly remove contaminated clothing</li> <li>Stand under the shower &amp; pull the handle. The flow of water should be immediate &amp; should last for at least 15 minutes. Resume if pain returns.</li> </ul> </li> <li>Physical Injury Response <ul style="list-style-type: none"> <li>In the case of a minor injury, bandages may be used to stabilize the wound, if necessary, seek medical attention.</li> <li>In the event of a major cut seek immediate medical attention at the Health Center or local hospital. For a large laceration, immediately contact Security at 836-2222 and remain with the victim.</li> </ul> </li> </ol>

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### Academic Departments Lab Safety

The following are list of requirements applied to specific department areas that are not intended for campus wide implementation. If biological, chemical, or radiological materials are used, the PI/LS shall prepare a Department Specific Plan.

Step	Actions
1	<p><b>Biology Department:</b></p> <p>a. Develop and oversee process for annual update of the Chemical Hygiene Plan (CHP) and/or radiation safety manual (RSM), reminding RMSS when annual (ICHP) updates are due and reviewing updated plans. See the Biology department CHP website:</p> <p>b. Ensure laboratories complete &amp; update annual inventories of hazardous chemicals as required by the university's <a href="#">hazard communication</a> and (ICHP).</p>
2	<p><b>Department of Chemistry and Biochemistry</b></p> <p>a. Develop and oversee process for annual update of the (CHP) and/or radiation safety manual (RSM), reminding RMSS when annual (ICHP) updates are due &amp; reviewing updated plans. See the Department of Chemistry and Biochemistry website:</p> <ul style="list-style-type: none"> <li>• <a href="#">Chemical Hygiene Plan and Safety Guidelines</a></li> <li>• <a href="#">Radiation Safety Manual</a></li> </ul> <p>b. Ensure laboratories complete &amp; update annual inventories of hazardous chemicals as required by the university's hazard communication and (ICHP).</p>
3	<p><b>Geology Department</b></p> <p>a. Develop and oversee process for annual update of the Chemical Hygiene Plan (CHP) and/or radiation safety manual (RSM), reminding RMSS when annual (ICHP) updates are due and reviewing updated plans. See the Geology department website: <a href="#">Geology Department</a></p> <p>b. Ensure laboratories complete and update annual inventories of hazardous chemicals as required by the university's hazard communication and (ICHP).</p>
4	<p><b>Materials Science and Biomedical Engineering</b></p> <p>a. Develop and oversee process for annual update of the Chemical Hygiene Plan (CHP) and/or radiation safety manual (RSM), reminding RMSS when annual (ICHP) updates are due and reviewing updated plans. See the Materials Science department website: <a href="#">Materials Science &amp; Biomedical Engineering</a></p> <p>b. Ensure laboratories complete and update annual inventories of hazardous chemicals as required by the university's hazard communication and (ICHP).</p>



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5	<p><b>Physics and Astronomy Department</b></p> <p>a. Develop and oversee process for annual update of the Chemical Hygiene Plan (CHP) and/or Radiation Safety Manual (RSM), reminding RMSS when annual (ICHP) updates are due and reviewing updated plans. See the Physics department website: <a href="#">Physics &amp; Astronomy</a></p> <p>b. Ensure laboratories complete and update annual inventories of hazardous chemicals as required by the university's hazard communication and (ICHP).</p>
6	<p><b>Art &amp; Design Department</b></p> <p>a. Develop and oversee process for annual update of the Chemical Hygiene Plan (CHP) and/or Radiation Safety Manual (RSM), reminding RMSS when annual (ICHP) updates are due and reviewing updated plans. See the Art and Design department website: <a href="#">Art &amp; Design</a></p> <p>b. Ensure laboratories complete and update annual inventories of hazardous chemicals as required by the university's hazard communication and (ICHP).</p>
7	<p><b>Barron County Chemistry &amp; Biochemistry</b></p> <p>a. Develop and oversee process for annual update of the Chemical Hygiene Plan (CHP) and/or Radiation Safety Manual (RSM), reminding RMSS when annual (ICHP) updates are due and reviewing updated plans. See the Barron County Chemistry &amp; Biochemistry department website:</p> <p>b. Ensure laboratories complete and update annual inventories of hazardous chemicals as required by the university's hazard communication and (ICHP).</p>
8	<p><b>Nursing</b></p> <p>a. Develop and oversee process for annual update of the Chemical Hygiene Plan (CHP) and/or Radiation Safety Manual (RSM), reminding RMSS when annual (ICHP) updates are due and reviewing updated plans. See the Nursing department website:</p> <p>b. Ensure laboratories complete and update annual inventories of hazardous chemicals as required by the university's hazard communication and (ICHP).</p>

## Institutional Chemical Hygiene Plan (ICHP)

### Training Program

All laboratory personnel, visitors, visiting faculty and students who will work independently with hazardous materials or equipment are required to be safety trained before starting any laboratory work.

Step	Actions
1	<p>Training for students &amp; visitors (including faculty) who will work independently with hazardous materials or equipment will include the requirements and use of the ICHP, SDS, PPE, general safety rules, where emergency equipment is located (safety eye wash, showers, spill kits, first aid, AED etc.), chemical management, and emergency procedures for accidents and spills. The online training will be completed as required by ICHP:</p> <p>a. To access <b>SafeCollege</b>: <a href="https://uwec-wi.safecolleges.com/admin/main">https://uwec-wi.safecolleges.com/admin/main</a> or</p> <p>b. To access CANVAS training presentation <a href="https://www.uwec.edu/canvas/">https://www.uwec.edu/canvas/</a> will cover the following annual safety training topics:</p> <ul style="list-style-type: none"> <li>• General Hazardous Waste Safety Training</li> <li>• Bloodborne Pathogens Training</li> </ul>
2	<p>The CHO or designee will provide hands on training following completion of the ICHP and CHP requirement for those working independently. For all other students who are supervised during class sessions, the instructor will inform students of the proper safety precautions and emergency procedures.</p>
3	<p>Additional training may be required for special procedures specific to a laboratory. The PI/LS or the faculty member is responsible for that lab will be required to inform, deliver, monitor, and enforce the training.</p>
4	<p>Once faculty, staff, and students have completed the safety training and sign the form on <b>Appendix C. Laboratory Safety Training Acknowledgement</b>. However, it will generally be appropriate to include a “safety training or safety talking point” at the beginning of each laboratory course to address issues that are specific to that course.</p>

**Note:** See Individual Department’s CHP for more information.

## Institutional Chemical Hygiene Plan (ICHP)

### Related Information:

- 29 CFR 1910.1450 - [Occupational exposure to hazardous chemicals in laboratories.](#)
- 29 CFR 1910.1450 - [Section H. Emergency Procedures](#)
- 29 CFR 1910.1200 - [Hazard Communication](#)

### Appendices:

- A. [Personal Protective Equipment \(PPE\) Standards](#)
- B. [Workplace Hazard Assessment Form for Laboratories](#)
- C. [Laboratory Safety Training Acknowledgement](#)

### Administration:

#### Approval Details

<b>Approval Authority:</b>	29 CFR 1910.1450 - <a href="#">OEH chemicals in laboratories.</a> 29 CFR 1910.1450 - <a href="#">Section H. Emergency Procedures</a> 29 CFR 1910.1200 - <a href="#">Hazard Communication</a>
<b>Approved By:</b>	<i>Brian K. Drollinger</i>
<b>Approval Date:</b>	10/27/2022
<b>Version no:</b>	V2.0
<b>Date of next Review:</b>	The practice directive and procedure review should be scheduled annually from the approval date.

#### Revision History

Version	Revision Date	Description of changes	Author
2.0	08/02/2022	Procedure Established	Chaizong Lor

#### Contact Person/Department

<b>Contact Person:</b>	Brian Drollinger, Director of Risk Management, Safety & Sustainability
<b>Keywords:</b>	Institutional Chemical Hygiene Plan (ICHP)