Appendix G: Training for Laboratory Personnel

Training and Documentation Process/**1ApxG**
Training Plan/**3ApxG**
Training Module Lists/**4ApxG**

Occupational Safety and Health Administration (OSHA) regulations state that all individuals who work in laboratories are required to receive safety training on the type of hazards and the hazardous materials present in their laboratory. This law is described in Appendix B: Understanding OSHA's Laboratory Standard.

This Appendix provides a method to meet UWL's legal requirements and to minimize liability exposure. All individuals who work in laboratories, including, but not limited to faculty, instructors, directors, managers, supervisors, research assistants, and any student employee, are required to complete and document safety training. Again, the type of training required will depend on the hazards present in your laboratory. However, all individuals who use hazardous chemicals must receive training. Personnel who supervise or direct others can use the training methods described in this Appendix to identify required training materials and to track personnel as they complete the training process.

A variety of training materials are available and described in the Training Modules section of this Appendix. These training materials generally fall into one of the following categories.

- Readings and review questions provided in this guide, including your laboratory's Chemical Hygiene Plan and Safety Data Sheets for the chemicals used in your laboratory.
- Miscellaneous documents available on the Internet.
- Safety training sessions conducted by department faculty/staff or by Environmental Health and Safety.
- Internet based safety training available through the Safety Learning Management System (LMS) administered by Environmental Health and Safety.
- Internet based safety courses. These courses can be free or numerous commercial vendors offer courses for a reasonable online participation fee. Contact Environmental Health and Safety for assistance with identifying courses of interest.

TRAINING AND DOCUMENTATION PROCESS

The procedures outlined in this section provide one method for the supervisor, or person who directs other individuals, to document that personnel in their laboratory complete required training. The process allows each individual who supervises or directs others to implement a complete safety-training program that is consistent with their laboratory-specific needs.

1. Make a copy of the Training Plan form included in this appendix. Make a separate copy for each individual who works in your laboratory.

2. Review the Health and Safety Modules List to identify training modules that are required or recommended for each of the people that directly report to you for work assignments. Each identified subject should be listed on the Training Plan form. The Health and

Safety Modules List identifies available modules, includes a description of each module, identifies who needs the training and specifies the location of training materials or other information related to completing the training requirements.

3. Inform the laboratory worker of the location of the training materials or the scheduled dates and locations of any laboratory safety workshop.

4. Have the laboratory worker complete the training/workshop and return to you a module specific assessment. Most assessments are available at the end of the Part or Appendix of this Laboratory Safety and Chemical Disposal Guide. Appendix I provides several assessments and answer keys. Answer keys are available to faculty or staff by contacting Environmental Health and Safety.

5. Grade the assessment and make sure the laboratory worker understands incorrect responses or subsequently corrects the assessment to achieve 100%.

6. Have the laboratory worker sign the Training Plan form as they complete the self-directed module or workshop. The supervisor or director of the laboratory worker should retain the original signed copy of the Training Plan for a minimum of three years past the date the person no longer reports to them for work assignments. The laboratory worker may desire to retain a copy of the Training Plan form for their personal records.

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TRAINING PLAN

Laboratory Worker Name: _____

Module Title	Date Training Completed	Laboratory Worker Signature*

***** I verify that I have completed this training module and understand the requirements.

Supervisor should retain this document for a minimum of three years past the date the person no longer reports to them for work assignments.

I certify that this laboratory worker has completed all modules listed above.

_____ _____ _____
(Supervisor name printed) **(Supervisor signature)** **(Date)**

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LABORATORY HEALTH AND SAFETY MODULES LIST

Module Focus: General Health and Safety Modules

TITLE	AUDIENCE	SUBJECT DESCRIPTION	METHOD OF TRAINING
Laboratory Safety	Suggested for every laboratory worker.	Provides an overview of general laboratory safety issues, including but not limited to safety data sheets, labeling, personal protective equipment, hazard recognition, and hazard control.	Chemistry Department conducts training session within the first two weeks of fall and spring terms. Training session is also loaded on UWL/UW System learning management system, currently Canvas.
Emergency Procedures	Suggested for every laboratory worker.	This document will help laboratory personnel prepare for response to emergencies that develop in a laboratory. This document emphasizes that actions should be taken to prevent emergencies.	Laboratory worker reads Part E of this guide and completes assessment at end of Part E.
Sharps and Laboratory Glass Disposal	Suggested for every laboratory worker.	This document describes the minimum campus standards for disposal and handling of wastes that can puncture skin, such as sharps and other hazardous laboratory glass.	Laboratory worker reads Part I of this guide and completes assessment at end of Part I.
Laboratory Specific Chemical Hygiene Plan	Required for every laboratory worker that uses hazardous chemicals.	This document describes the laboratory specific chemical hazards and exposure control measures necessary to provide a safe and healthful laboratory. The Principal Investigator, Laboratory Manager, Director or Supervisor must complete the model plan included in Appendix C of this guide.	Laboratory worker reads the laboratory-specific Chemical Hygiene Plan. A completed plan must be available for all personnel working in a laboratory or group of laboratories
Safety Showers and Eye Washes	Suggested for every laboratory worker.	Focuses on increasing awareness and preparedness of lab personnel during emergencies. Topics include equipment requirements, location, use, and maintenance.	Contact Environmental Health and Safety to coordinate training.
Safe Operation of Laboratory Fume Hoods	Suggested for every laboratory worker.	This training identifies types of exhaust hoods, when hoods should be used, and how to use hoods.	Contact Environmental Health and Safety to coordinate training.
Personal Protective Equipment (PPE)	Suggested for every laboratory worker.	Describes different types of PPE, selection process, use, care, maintenance, and storage.	Contact Environmental Health and Safety to coordinate training.
Safety Showers and Eyewashes	Suggested for every laboratory worker.	Describes equipment requirements, locations, use, and maintenance.	Contact Environmental Health and Safety to coordinate training.

Module Focus: General Health and Safety Modules

TITLE	AUDIENCE	SUBJECT DESCRIPTION	METHOD OF TRAINING
Preventing Contamination	Suggested for every laboratory worker.	Increase awareness of inadvertent spread of contaminants and methods to prevent spread. Topics include contaminant entry into the body, isolation and good housekeeping.	Contact Environmental Health and Safety to coordinate training.
Electrical Safety in the Laboratory	Suggested for every laboratory worker.	Topics include fundamentals on amps, circuits, circuit breakers, grounding, GFCI protection, avoiding common electrical hazards and choosing equipment for use with flammables, fires and other emergencies.	Contact Environmental Health and Safety to coordinate training.
Laboratory Ergonomics	Suggested for every laboratory worker.	Minimize strain while working in the lab. Topics include practices causing ergonomic problems, stretching, neutral postures, and other techniques to prevent injury.	Contact Environmental Health and Safety to coordinate training.
Handling Compressed Gas Cylinders	Suggested for every laboratory worker that handles or uses compressed gas cylinders.	Describes proper handling of compressed gas cylinders. Reviews different types of gas storage, handling of cylinders, hazards of gas leaks, and proper use of gas cylinders.	Contact Environmental Health and Safety to coordinate training.
Basic First Aid	Suggested for every laboratory worker	Teaches personnel how to respond to a medical emergency. Provides basic instruction for individuals who decide to act as a good Samaritan and offer medical assistance to another person.	Contact Environmental Health and Safety to coordinate training.

Module Focus: Chemical Laboratory Health and Safety Modules

TITLE	AUDIENCE	SUBJECT DESCRIPTION	METHOD OF TRAINING
Chemical Hazards in Laboratories	Suggested for every laboratory worker.	This document helps to identify chemical hazards and understand Safety Data Sheets.	Laboratory worker reads Part B of this guide and completes assessment at end of Part B.
Chemical Safety Procedures for Laboratories	Suggested for every laboratory worker.	This document gives general guidance for working safely with chemicals in a laboratory. The document is not meant to be a complete review of safety procedures for every laboratory.	Laboratory worker reads Part D of this guide and completes assessment at end of Part D.
Chemical Disposal Procedures	Required for every laboratory worker that uses hazardous chemicals.	This document describes the methods to safely dispose and handle hazardous wastes and hazardous chemicals.	Laboratory worker reads Part G of this guide and completes assessment at end of Part G.

Module Focus: Biology/Microbiology Health and Safety Modules

TITLE	AUDIENCE	SUBJECT DESCRIPTION	METHOD OF TRAINING
Autoclaves: Operational and Safety Guidelines	Required for every laboratory worker that uses an autoclave.	This document gives general guidance for operating and safely working with autoclaves in a laboratory.	Laboratory worker reads Appendix J of this guide, receives hands-on training from Microbiology Lab Manager or other qualified faculty or staff, and completes assessment at end of Appendix J.
Bloodborne Pathogens	Required for every laboratory worker that uses human blood or other items that could transmit human pathogens.	Educates personnel about how bloodborne pathogens are transmitted, who can be affected and how simply exposure can be prevented. Topics include defining bloodborne pathogens, universal precautions, protective equipment, hepatitis B vaccination, and safe work practices.	Contact Environmental Health and Safety to coordinate training.
Radiation Safety Hazards	Required for every laboratory worker that uses radionuclides or works in such an area.	This training will make laboratory personnel aware of the hazards, radiation badge requirements, contamination control, and safe methods to work with radionuclides.	Contact UWL Radiation Safety Officer to coordinate training.
Animal Tissue Disposal	Suggested for every laboratory worker that disposes animal tissues.	This document describes the minimum campus standards for disposal and handling of waste animal tissues.	Laboratory worker reads Part H of this guide and completes assessment at end of Part H.
Biosafety in Microbiological and Biomedical Laboratories, published by CDC and NIH	Suggested for every laboratory worker that works in a microbiology laboratory.	This publication describes the standard and special microbiological controls, safety equipment, and facilities necessary to work with Biosafety Levels 1-4 microbes. The document is available on the internet at: https://www.cdc.gov/labs/BMBL.html	Laboratory worker reads selected sections of the book as assigned by their supervisor.