



TRAINING MATRIX FOR LABORATORIES AND SHOPS

Employee training is a key component of any safety program. This matrix outlines the Environmental Health and Safety classes required for all TTU paid personnel working in a lab or shop setting. The matrix does not include every training topic needed. **Keep in mind that an employee must have training to do their job safely.** Therefore, if they have duties that are potentially hazardous supervisors must ensure that appropriate information has been provided. Any time the duties, equipment and/or processes change, the employee must receive updated training. Training must be documented and records must be kept for a minimum of three years.

This training matrix is applicable to Principle Investigators (PIs), faculty, lab supervisors, shop supervisors, research personnel, graduate students, and undergraduate students that are paid TTU employees.

Answer the questions below with your PI/Supervisor to determine which tasks are part of your job. If the answer is yes to a question, the course(s) listed to the right represent a training class/document that supports that task. If an "Available SOP" is listed, that document must also be reviewed as part of the training. Some SOPs listed require additional training to be documented. This document will be updated as new SOPs become available, current SOPs are updated, and when safety regulations change.

The Vivid Learning Management System tab contains instructions for completing training online. For classroom based training contact Environmental Health and Safety.

After the initial training is completed, site-specific training must be completed. The Site-Specific Training tab contains specific training checklists for labs/shops, Bloodborne Pathogen training (if applicable), and operators of scissor lifts (if applicable).

After the training listed in this matrix is completed, completion of the **Site Specific Training Checklist** is required, and must be documented. This training document should be kept with the other training records for the lab/shop.

Contact Environmental Health and Safety with any questions 372-3587.

ENVIRONMENTAL HEALTH AND SAFETY TRAINING MATRIX FOR LABORATORIES AND SHOPS

Are you TTU Faculty, Staff, or paid student...?	Title or Subject	Description	Frequency	Delivery Method	Available SOPs
<p>Working in a lab or shop?</p>	<p>University Laboratory Safety (all modules)</p>	<p>This program covers the occupational exposure to hazardous chemicals (Chemical Hygiene Plan). OSHA 29 CFR 1910.1450</p>	<p>Annual</p>	<p>Vivid LMS</p>	<p>Chemical Hygiene Plan</p>
	<p>Portable Fire Extinguisher Safety</p>	<p>Portable fire extinguishers training. OSHA 29 CFR 1910.157</p>	<p>Annual</p>	<p>Vivid LMS</p>	<p>None</p>
	<p>Personal Protective Equipment (PPE) (7 lessons)</p>	<p>Covers the selection, use, care, and maintenance of PPE. OSHA 29 CFR 1910.132</p>	<p>Every 2 years</p>	<p>Vivid LMS</p>	<p>Personal Protective Equipment</p>
<p>Working with chemicals (includes gasoline, hydraulic fluids, oil, etc.)?</p>	<p>Hazard Communication</p>	<p>This program applies to all chemicals known to be present in the workplace such that employees can be exposed under normal conditions of use or in a foreseeable emergency. OSHA 29 CFR 1910.1200</p>	<p>Annual</p>	<p>Vivid LMS</p>	<p>Hazard Communication</p>

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Are you TTU Faculty, Staff, or paid student...?	Title or Subject	Description	Frequency	Delivery Method	Available SOPs
Use a chemical fume hood?	Fume Hood Safety	Learn to use your fume hood properly and understand how the lab ventilation system functions. NFPA 45 Section 6-4.5 OSHA 29 CFR 1910.1450	Initial Hire	Vivid LMS	A Guide to Laboratory Fume Hoods
Working with flammable and/or combustible liquids?	Flammable Liquid Safety	Working safely with flammable and combustible liquids OSHA 29 CFR 1910.106 OSHA 29 CFR 1910.1450	Annual	Vivid LMS	None
Who will generate hazardous waste (chemicals for disposal)?	Hazardous Waste Management	Identification and disposal of hazardous chemical wastes. OSHA 29 CFR 1910.120 ; EPA 40 CFR Parts 260-269	Annual	Vivid LMS	Hazardous Waste Management and Satellite Accumulation Area Guide Used Aerosol Container Disposal
Using or handling compressed gases (including lecture bottles)?	Compressed Gas Safety	Safe handling, storage, and use of compressed gases. OSHA 29 CFR 1910 Subpart H	Initial Hire	Vivid LMS	Compressed Gases and Cryogenic Liquids Lecture Bottle Safety
Using or handling cryogenic liquids?	Cryogenic Liquid Safety	Safe handling, storage, and use of cryogenic liquids. OSHA 29 CFR 1910 Subpart H	Initial Hire	TTU Training	Compressed Gases and Cryogenic Liquids

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Are you TTU Faculty, Staff, or paid student...?	Title or Subject	Description	Frequency	Delivery Method	Available SOPs
Working with formaldehyde or formaldehyde wastes outside of a chemical fume hood?	Formaldehyde Safety	Covers safe work practices to prevent occupational exposures to formaldehyde. OSHA 29 CFR 1910.1048	Every 2 years	Vivid LMS	Chemical Hygiene Plan Hazardous Waste Management and Satellite Accumulation Area Guide
Working with electrical equipment or apparatus?	Electrical Safety	Controlling electrical hazards and safe work practices OSHA 29 CFR 1910.302-335	Annual	Vivid LMS	None
Maintaining, servicing, or physically creating equipment with the potential for stored energy?	Lock and Tag (Lockout/Tagout)	Safe work practices and standard for controlling hazardous energy. OSHA 29 CFR 1910.147	Annual	Vivid LMS	Lockout/Tagout Program
Working with equipment or in areas where you need to raise your voice to have a conversation (occupational noise exposure)?	Hearing Conservation	Preventing hearing loss and the review of the Hearing Conservation Program. OSHA 29 CFR 1910.95	Initial Hire	Vivid LMS	Hearing Conservation Program

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Are you TTU Faculty, Staff, or paid student...?	Title or Subject	Description	Frequency	Delivery Method	Available SOPs
Working with hand or portable powered tools or other hand held equipment?	Hand Safety	Safe work practices using hand tools. OSHA 29 CFR 1910 Subpart P and 1910.241-244 OSHA 29 CFR 1910.138	Initial Hire	Vivid LMS	None
	Hand and Power Tools			Vivid LMS	
Who will wear a respirator or dust mask?	Respirator	Preventing harmful exposure to airborne contaminants. OSHA 29 CFR 1910.134	Annual	Classroom only x3881	Respiratory Protection Program
Who will handle human cells, human blood, and other human derived materials?	Bloodborne Pathogens (BBP)	Addresses occupational exposure to human blood and body fluids (including human cells) that may contain bloodborne pathogens. OSHA 29 CFR 1910.1030	Annual	Vivid LMS	Exposure Control Plan , Hepatitis B Waiver
Who will handle Infectious, potentially infectious or microorganisms and/or the waste?	Introduction to Biosafety	Principles of biosafety and safe work practices with infectious materials.	Every 2 years	Vivid LMS	Biosafety in Microbiological and Biomedical Laboratories Biohazardous Waste Handling and Disposal Guide Biological Safety Cabinet Use
	Biosafety Cabinets		Every 2 years	Vivid LMS	

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Are you TTU Faculty, Staff, or paid student...?	Title or Subject	Description	Frequency	Delivery Method	Available SOPs
Who will work with recombinant DNA?	Recombinant DNA	Safety work practices for research involving rDNA or synthetic nucleic acids molecules	Initial Hire	Vivid LMS	Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules
Who will package infectious waste for shipments or sign a shipping manifest?	Regulated Medical Waste	Proper shipping procedures of infectious or potentially biological wastes. 49 CFR Parts 171-180	Every 3 years	TTU Training	Biohazardous Waste Handling and Disposal Guide
Who will send, transport, or receive dry ice, or prepare a Shipper's Declaration for materials on dry ice?	Dry Ice Shipping	Packaging, marking, labelling shipments of dry ice and preparing the Shipper's Declaration. IATA Dangerous Goods Regulations and 49 CFR 172 Subpart H	Every 2 years	Classroom only x3881	None
Who will perform soldering activities?	Soldering Safety	Review of safe work practices with lead or other metals involved with the soldering process. OSHA 29 CFR 1910.1025 OSHA 29 CFR 1910.1200 OSHA 29 CFR 1910.1450	Initial Hire	Soldering Safety Guidelines	Soldering Safety Guidelines
Working in a hot environment?	Heat Stress	Reduce the risk of illness, injury, or death for those individuals on campus who work in hot environments and are susceptible to heat related illnesses. OSHA-Occupational Heat Exposure	Initial Hire	Heat Stress and Prevention Plan	Heat Stress and Prevention Plan

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Are you TTU Faculty, Staff, or paid student...?	Title or Subject	Description	Frequency	Delivery Method	Available SOPs
Who will operate or work in a lab with a Class 3b or Class 4 Laser?	Laser Safety Respirator	Safe operation of lasers. OSHA Technical Manual (OTM) Section III: Chapter 6, Laser Hazards Preventing harmful exposure to airborne contaminants. OSHA 29 CFR 1910.134	Every 3 years Annual	Laser Safety Program Classroom only x3881	Laser Safety Program Respiratory Protection Program
Who will manipulate or handle nanometer length matter?	Nanotechnology Respirator	Safe work practices of nanoparticles. OSHA General Duty Clause Section 5 (a) Preventing harmful exposure to airborne contaminants. OSHA 29 CFR 1910.134	Initial Hire Annual	Approaches to Safe Nanotechnology Classroom only x3881	Approaches to Safe Nanotechnology Chemical Hygiene Plan Hazardous Waste Management and Satellite Accumulation Area Guide Respiratory Protection Program

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Are you TTU Faculty, Staff, or paid student...?	Title or Subject	Description	Frequency	Delivery Method	Available SOPs
Who will work with picric acid or handle picric acid waste?	Picric Acid	Guidelines for work with picric acid.	Initial Hire	Guidelines for work with picric acid	Guidelines for work with picric acid