

## ASU EHS laboratory-specific training checklist

The ASU Environmental Health and Safety department has developed this laboratory-specific training checklist to help ensure all personnel working within ASU laboratories are adequately trained before beginning work with any hazardous materials. The form shall be maintained in each laboratory and be available for review. Questions regarding the checklist should be sent to [askehs@asu.edu](mailto:askehs@asu.edu).

**To the Principal Investigator or designee:** Please select the training topics relevant to the work being performed and discuss them with your new personnel before any work with hazardous materials. Check the box for each required training and complete documentation of the training on this form. The [EHS Training Determination Tool](#) can be used to determine the online training required as part of laboratory operations.

### Annual mandatory web-based training and general procedures

All personnel must complete the following training annually.

- Fire safety and prevention. Date of completion: \_\_\_\_\_
- Hazardous waste management. Date of completion: \_\_\_\_\_
- Laboratory safety. Date of completion: \_\_\_\_\_
- Hazards present in the laboratory including signs and symptoms associated with exposure to the materials (chemical, radiological, laser and biological) and routes of exposure.
- Understand the facility requirements - e.g., closed laboratory doors, temperature settings, no gloved hands in hallways and the use of secondary containers for transport.
- Understand the lab-specific working-alone policies and procedures. Date of completion: \_\_\_\_\_

### Emergency procedures

All personnel must be trained on lab-specific emergency procedures.

Review the following:

- All applicable safety signs - e.g., biohazard, fire and radioactive signage - their meaning and any requirements for entry.
- Call 911 in the event of an emergency.
- Communication procedures on how to notify the PI and the lab's emergency contact.
- Contamination control- e.g., hand washing, spill kit locations and knowledge of promptly cleaning up spills and general housekeeping.
- Emergency exit aisle and door locations.
- [Emergency Response Guide](#) information.
- Eyewash and safety shower location and directions for use.
- First aid kit location, as applicable.
- Hazards present in the laboratory.
- Nearest fire alarm pull box and nearest fire extinguisher locations.
- Primary and secondary building emergency evacuation routes and outside assembly area locations.

Date of completion: \_\_\_\_\_

**Personal protective equipment**

All personnel must read and understand the following PPE usage and requirements:

- The minimum PPE for all laboratories includes a lab coat, safety glasses or goggles, gloves, close-toed shoes and clothing that covers the legs to the ankles.
- Identify the limitations of the personal protective equipment.
- Identify when additional PPE is required based on lab activities and procedures and the use of specialized PPE. This is not an exhaustive list.
  - Acid aprons.
  - Face shields.
  - Hearing protection.
  - Respiratory protection ( N95;  PAPR;  Half-face or full-face respirator)
  - Work gloves.
  - Other necessary PPE \_\_\_\_\_

Date of completion: \_\_\_\_\_

**Reporting**

All personnel must understand the procedures for reporting accidents and injuries.

Procedures personnel are trained to perform:

- Personnel are trained to report any accidents, injuries, incidents and near misses in the laboratory, violations of institutional policies, federal, state or local regulations or any research-related accidents and illnesses to the PI and EHS immediately.

[cfo.asu.edu/ehs-incident-reporting](http://cfo.asu.edu/ehs-incident-reporting)

Date of completion: \_\_\_\_\_

**Biological**

Biological laboratories require initial and refresher training as follows:

Biological laboratory (web-based training):

- Autoclave. Date of completion: \_\_\_\_\_
- Comprehensive biosafety and bloodborne pathogens. Date of completion: \_\_\_\_\_
- EHS Employee Health B virus. Date of completion: \_\_\_\_\_
- Field safety. Date of completion: \_\_\_\_\_
- Animal biosafety. Date of completion: \_\_\_\_\_

Procedures personnel are trained to perform:

- Autoclave procedure, including equipment-specific training, particularly regarding decontamination of biohazardous material.
- Decontamination and disposal methods for biohazardous materials.
- Proper procedures for all equipment in the laboratory, including biological safety cabinets and centrifuges.
- Requirements of medical surveillance (animal contact, etc.).
- Security requirements for biohazardous materials present in the laboratory.
- Standard microbiological practices and procedures for the laboratory.
- Use and preparation of laboratory disinfectants.

Read and understand safety references:

- [ASU Biosafety Manual](#)

- [ASU Exposure Control Plan for Bloodborne Pathogens](#)
- [Biosafety in Microbiological and Biomedical Laboratories \(BMBL\)](#)
- [NIH Guidelines](#)

Date of completion: \_\_\_\_\_

**Chemical**

**Chemical laboratories require initial and refresher training as follows:**

Chemical laboratory (web-based training):

- Anesthetic gas safety. Date of completion: \_\_\_\_\_
- Compressed gas. Date of completion: \_\_\_\_\_
- EHS hydrofluoric acid safety. Date of completion: \_\_\_\_\_
- EHS pyrophoric safety. Date of completion: \_\_\_\_\_
- Liquid nitrogen safety. Date of completion: \_\_\_\_\_
- Respirable crystalline silica. Date of completion: \_\_\_\_\_

Procedures personnel are trained to perform:

- Hands-on training for compressed gas cylinders that includes transportation, regulator use and emergency procedures.
- Lab-specific handling of chemical waste and satellite waste area.
- Liquid nitrogen filling station operations and safety considerations for moving liquid nitrogen dewar(s) in elevators.
- Use of safety equipment in the laboratory, including chemical fume hoods, gas cabinets, glove boxes, etc.

**Read and understand safety references:**

- [ASU Chemical Hygiene Plan](#)

Date of completion: \_\_\_\_\_

**Radiation**

**Radiation laboratories require initial and refresher training as follows:**

Radiation laboratory (web-based training):

- Radioactive materials safety Date of completion: \_\_\_\_\_
- Radiation-producing equipment Date of completion: \_\_\_\_\_

Procedures personnel are trained to perform:

- Handling of radioactive waste.
- Personal dosimetry, including what dosimetry is, how to properly wear dosimeters and their responsibilities as radiation workers for personal dosimetry.
- Proper procedures when working with or near sources of radiation or radiation-producing equipment, principles of radiation protection and how workers can reduce radiation exposure.
- Security and access requirements.

**Read and understand safety references:**

- [ASU Radioactive Materials Manual](#)

Date of completion: \_\_\_\_\_

**Laser**

**Laser laboratories require initial and refresher training as follows:**

Laser laboratory (web-based training):

- Laser Safety

Date of completion: \_\_\_\_\_

Procedures personnel are trained to perform:

- Location, inspection and use of laser safety eyewear.
- Manufacturer instructions for installation, operation and maintenance.
- Standard operating procedures for laser alignment, servicing and operations.

**Read and understand safety references:**

- [ASU Laser Safety Manual](#)

Date of completion: \_\_\_\_\_

**Shop equipment**

**Laboratories with shop equipment require initial and refresher training as follows:**

Shop/makerspace (web-based training):

- Cranes, hoists and slings.
- Fall protection.
- Hearing protection.
- Hot work safety.
- Ladder safety.
- Machine shop safety.
- Powered industrial equipment.

Date of completion: \_\_\_\_\_

Date of completion: \_\_\_\_\_

Date of completion: \_\_\_\_\_

Date of completion: \_\_\_\_\_

Date of completion: \_\_\_\_\_

Date of completion: \_\_\_\_\_

Date of completion: \_\_\_\_\_

Procedures personnel are trained to perform:

- Hot work area procedures and PPE requirements.
- Manufacturer's instructions and operating procedures for shop equipment, including machine guarding, drill presses, table saws, etc.

Date of completion: \_\_\_\_\_

**Training attestation:**

I understand that additional risk assessment and training may be required when there is a change in the hazards associated with my work.

By signing this form, I agree that I have been trained on the checked items above. I understand this information and feel comfortable with my knowledge and ability to adhere to safety practices, laws, rules and guidelines.

Personnel name (print): \_\_\_\_\_

Personnel signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Training was provided on the above checked items by:**

PI/ designee (print): \_\_\_\_\_

PI/ designee signature: \_\_\_\_\_

Date: \_\_\_\_\_