



# Lab Safety and Chemical Hygiene

---

## Introduction:

In this course, you will learn about the requirements employers must meet to ensure a safe laboratory environment for their employees. It also walks you through creating an effective and comprehensive Chemical Hygiene Plan including basic components, general laboratory safety practices, facility and operation safety rules, chemical hazard identification, and other general safety topics that relate to laboratories. OSHA has tailored a standard for occupational exposure to hazardous chemicals in laboratories referred to as the Laboratory Standard which is found in Title 29 of the Code of Federal Regulations Part 1910). Under this standard all operations that meet the OSHA definition of a laboratory are subject to the Laboratory Standard.

The course will cover the basic principles of biological, chemical, radiological, and physical safety practices within a laboratory environment. Although such training is required under the OSHA Laboratory Standard (29CFR 1920.1450) for all individuals who work in the laboratory, this course is primarily directed toward those individuals who have been entrusted with laboratory safety duties, e.g. chemical hygiene officers. In this course, you will learn about the requirements employers must meet to ensure a safe laboratory environment for their employees. It also walks you through creating an effective and comprehensive Chemical Hygiene Plan including basic components, general laboratory safety practices, facility and operation safety rules, chemical hazard identification, and other general safety topics that relate to laboratories.

## Who Should Attend?

Lab Managers, Technicians & Personnel, Supervisors, Environmental, Health & Safety Personnel & Professionals, Chemical Engineers & Technicians, Researchers, Risk Managers, Operations Managers, those responsible for ensuring that the lab is in compliance with EPA and local hazardous waste regulations Environmental, Line Managers, those who have been assigned responsibilities of safety management system & in training employees in safety rules

## Course Objectives:

### **By the end of this course delegates will be able to:**

- Understand the OSHA Laboratory Standard and how it relates to their specific requirements
- be able to write a Chemical Hygiene Plan and implement it in their laboratory
- How to keep exposures to hazardous materials or risks from physical hazards to a minimum while making every effort to be informed about the risks and hazards
- Achieve a zero-risk environment in the laboratory
- How to approach an accident free workplace by setting a goal of zero incidents and excuses
- Learn how to develop safe practices by laboratory workers
- Have a better understanding of the OSHA regulations that apply to laboratories
- Be better prepared to develop a Chemical Hygiene Plan for your laboratory

## Course Outline:

- Overview
- The Laboratory Standard
- The Chemical Hygiene Plan
- SOPs for Handling Hazardous Chemicals Module
- Control Measures to Reduce Exposures
- Fume Hood & Other Protective Equipment Performance Module
- Employee Information & Training
- Prior Approval of Laboratory Activity
- Medical Consultations & Examinations
- Chemical Hygiene Responsibilities
- Provision for Work with Particularly Hazardous Substances Module
- Hazard Identification
- Recordkeeping Contact
- Chemical hygiene officer
- Chemical hygiene plan
- Roles and responsibilities for laboratory safety

- Chemical hazard identification
- Controlling chemical exposures
- Fume hood evaluations
- Information and training
- Emergency action plans
- Particularly hazardous substances
- Laboratory inspections and audits
- MSDSs for the laboratory
- Nanotechnology
- NIH recombinant DNA guidelines
- CDC select agent registration
- Waste management
- Radiation safety