Laboratory Safety Management Training Course

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Laboratory environments are critical hubs of innovation, research, and development. Ensuring safety in laboratories is not only a regulatory requirement but also a strategic imperative to protect personnel, prevent accidents, and maintain operational efficiency. Laboratory Safety Management Training Course equips participants with advanced skills in risk assessment, chemical handling, biosafety, emergency response, and compliance. The course emphasizes practical, actionable strategies for implementing ISO standards, OSHA regulations, and global best practices in laboratory safety.

In today’s fast-paced research landscape, laboratory safety extends beyond compliance to encompass sustainability, digital safety monitoring, hazard mitigation, and continuous improvement programs. Participants will gain hands-on experience in incident investigation, safety audits, laboratory ergonomics, and environmental management systems (EMS). This training empowers professionals to create a culture of safety, minimize operational risks, and enhance organizational productivity while safeguarding human and environmental health.

Programme Curriculum

Laboratory Safety Management Training Course

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Course Duration

5 days

Course Objectives

1. Master core principles of laboratory safety and risk management.
2. Develop skills in hazard identification, chemical safety, and toxicology awareness.
3. Implement biosafety protocols and containment strategies effectively.
4. Apply ISO 45001 and OSHA safety standards in lab operations.
5. Conduct comprehensive safety audits, inspections, and compliance checks.
6. Design and implement emergency preparedness and response plans.
7. Integrate digital safety tools and IoT-based monitoring systems.
8. Enhance personal protective equipment (PPE) usage and ergonomics.
9. Establish waste management and environmental safety programs.
10. Analyze and investigate laboratory incidents and near-misses.
11. Promote a culture of continuous safety improvement and behavioral safety.
12. Incorporate risk-based laboratory design and workflow optimization.
13. Utilize case studies to develop practical solutions to real-world laboratory hazards.

Target Audience

1. Laboratory Managers
2. Research Scientists and Technicians
3. Quality Assurance Professionals
4. Health, Safety, and Environment (HSE) Officers
5. Regulatory Compliance Specialists
6. Academic and University Lab Staff
7. Pharmaceutical and Biotech Laboratory Personnel
8. Industrial Lab Supervisors

Course Modules

Module 1: Introduction to Laboratory Safety

- Importance of laboratory safety culture
- OSHA, ISO, WHO guidelines
- Types of laboratory hazards
- Safety signage and labeling best practices
- Case study: Laboratory accident due to chemical mismanagement

Module 2: Risk Assessment & Hazard Identification

- Techniques for hazard identification
- Risk assessment methodologies
- Chemical, biological, and physical hazards

- Risk prioritization strategies
- Case study: Implementing risk assessment in a pharmaceutical lab

Module 3: Chemical Safety Management

- Handling, storage, and disposal of chemicals
- Material Safety Data Sheets (MSDS) utilization
- Spill response and containment procedures
- Flammable and reactive substances management
- Case study: Preventing chemical spill incidents in academic labs

Module 4: Biological and Biosafety Protocols

- Biosafety levels
- Personal protective equipment (PPE) selection
- Containment strategies and sterilization techniques
- Handling infectious materials
- Case study: Biosafety protocol breaches and corrective actions

Module 5: Emergency Preparedness & Response

- Laboratory emergency planning
- Fire safety and evacuation procedures
- First aid and incident reporting
- Spill and exposure response
- Case study: Emergency response during a chemical fire

Module 6: Laboratory Ergonomics & Equipment Safety

- Safe handling of lab instruments and equipment
- Ergonomic workspace design
- Electrical and mechanical hazards
- Maintenance and calibration protocols
- Case study: Preventing repetitive strain injuries in laboratories

Module 7: Safety Audits, Compliance & Incident Investigation

- Conducting laboratory safety audits
- Compliance with regulatory and ISO standards
- Incident investigation techniques
- Root cause analysis for accidents
- Case study: Audit findings leading to improved safety compliance

Module 8: Sustainability & Waste Management in Labs

- Hazardous waste segregation and disposal
- Environmental impact reduction strategies
- Green chemistry and sustainable practices
- Monitoring and reporting environmental performance
- Case study: Successful implementation of sustainable lab practices

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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