Occupational Hazard Identification and Control Training Course

Professional Development Training Course Outline

Category	Trade Unions	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Occupational hazard identification and control is a critical pillar of modern workplace safety management systems, designed to reduce injuries, illnesses, fatalities, and operational disruptions across industries. In today’s fast-evolving industrial landscape driven by OSHA compliance frameworks, ISO 45001 standards, risk-based thinking, and predictive safety analytics organizations must proactively identify, assess, and control hazards before they escalate into incidents. Occupational Hazard Identification and Control Training Course is structured to build strong competency in workplace risk assessment, hazard recognition, safety engineering controls, and behavioral safety practices, ensuring participants can implement globally recognized safety protocols in real operational environments.

With increasing reliance on digital safety tools, AI-powered risk detection, incident predictive modeling, and real-time hazard reporting systems, occupational safety is no longer reactive but data-driven and preventive. This course equips learners with advanced skills in hazard mapping, ergonomic risk control, chemical exposure management, electrical and mechanical safety controls, and emergency preparedness systems. It is designed for modern workplaces that demand compliance, resilience, and a strong safety culture aligned with sustainability, ESG reporting, and zero-incident objectives.

Programme Curriculum

Occupational Hazard Identification and Control Training Course

Introduction

Occupational hazard identification and control is a critical pillar of modern workplace safety management systems, designed to reduce injuries, illnesses, fatalities, and operational disruptions across industries. In today’s fast-evolving industrial landscape driven by OSHA compliance frameworks, ISO 45001 standards, risk-based thinking, and predictive safety analytics organizations must proactively identify, assess, and control

hazards before they escalate into incidents. Occupational Hazard Identification and Control Training Course is structured to build strong competency in workplace risk assessment, hazard recognition, safety engineering controls, and behavioral safety practices, ensuring participants can implement globally recognized safety protocols in real operational environments.

With increasing reliance on digital safety tools, AI-powered risk detection, incident predictive modeling, and real-time hazard reporting systems, occupational safety is no longer reactive but data-driven and preventive. This course equips learners with advanced skills in hazard mapping, ergonomic risk control, chemical exposure management, electrical and mechanical safety controls, and emergency preparedness systems. It is designed for modern workplaces that demand compliance, resilience, and a strong safety culture aligned with sustainability, ESG reporting, and zero-incident objectives.

Course Duration

10 Days

Course Objectives

1. Understand core principles of Occupational Health and Safety (OHS) frameworks
2. Identify workplace hazards using systematic hazard identification techniques
3. Apply risk assessment methodologies (qualitative and quantitative)
4. Implement hierarchy of controls (elimination to PPE)
5. Analyze workplace incidents using root cause analysis (RCA)
6. Develop hazard reporting systems using digital safety tools
7. Conduct job safety analysis (JSA) and task risk breakdowns
8. Evaluate chemical, physical, biological, and ergonomic hazards
9. Strengthen compliance with ISO 45001 and OSHA standards
10. Design effective safety control programs and mitigation plans
11. Promote a strong safety culture and behavioral safety practices
12. Use predictive safety analytics and risk dashboards
13. Develop emergency preparedness and response strategies

Target Audience

1. Safety Officers and HSE Managers
2. Industrial Engineers and Process Engineers
3. Construction Site Supervisors
4. Factory and Plant Managers
5. Compliance and Risk Management Officers
6. Occupational Health Practitioners
7. Environmental Safety Consultants
8. Logistics and Warehouse Operations Supervisors

Course Modules

Module 1: Introduction to Occupational Safety

- Overview of workplace safety principles
- Evolution of OHS standards globally
- Key safety terminologies and frameworks
- Role of safety culture in organizations

- **Case Study:** Industrial accident due to poor safety culture in manufacturing plant

Module 2: Hazard Identification Fundamentals

- Definition and classification of hazards
- Workplace hazard mapping techniques
- Hazard spotting in real-time operations
- Reporting systems and documentation
- **Case Study:** Missed hazard leading to construction site collapse

Module 3: Risk Assessment Techniques

- Qualitative vs quantitative risk analysis
- Risk matrix application
- Probability and severity evaluation
- Risk prioritization methods
- **Case Study:** Chemical plant leakage due to poor risk evaluation

Module 4: Hierarchy of Controls

- Elimination and substitution strategies
- Engineering controls implementation
- Administrative controls design
- Personal Protective Equipment (PPE) optimization
- **Case Study:** Noise exposure control in mining industry

Module 5: Physical Hazards Management

- Noise, vibration, heat, and radiation risks
- Exposure limits and monitoring
- Control measures for physical hazards
- Workplace environmental safety audits
- **Case Study:** Hearing loss in industrial workers

Module 6: Chemical Hazard Control

- Toxic substances and exposure pathways
- Material Safety Data Sheets (MSDS) interpretation
- Ventilation and containment systems
- Safe handling and storage procedures
- **Case Study:** Chemical burn incident in laboratory

Module 7: Biological Hazards

- Infectious agents in workplaces
- Bio-risk assessment methods
- Hygiene and sanitation controls
- Vaccination and health monitoring
- **Case Study:** Healthcare worker infection outbreak

Module 8: Ergonomic Risk Management

- Manual handling risks

- Workplace design optimization
- Repetitive strain injury prevention
- Human-machine interaction safety
- **Case Study:** Musculoskeletal disorders in assembly line workers

Module 9: Electrical Safety

- Electrical hazard identification
- Lockout/Tagout (LOTO) procedures
- Safe maintenance practices
- Arc flash prevention techniques
- **Case Study:** Electrical shock in maintenance operations

Module 10: Fire and Explosion Safety

- Fire triangle and prevention strategies
- Fire detection and suppression systems
- Explosion risk management
- Emergency evacuation planning
- **Case Study:** Warehouse fire due to poor storage practices

Module 11: Construction Safety Management

- Site hazard identification
- Working at height safety
- Scaffold and equipment safety
- Contractor safety compliance
- **Case Study:** Fall injury due to scaffold failure

Module 12: Incident Investigation & RCA

- Incident reporting systems
- Root cause analysis tools (5 Whys, Fishbone)
- Corrective and preventive actions (CAPA)
- Documentation and learning systems
- **Case Study:** Machinery accident investigation

Module 13: Safety Audits and Inspections

- Audit planning and execution
- Compliance checklist development
- Non-conformance identification
- Reporting and corrective actions
- **Case Study:** Audit failure in food processing plant

Module 14: Emergency Preparedness

- Emergency response planning
- Evacuation procedures
- First aid and medical response
- Disaster risk management
- **Case Study:** Factory evacuation during gas leak

Module 15: Digital Safety and Smart Monitoring

- IoT-based hazard detection systems
- AI-driven risk prediction tools
- Safety dashboards and analytics
- Mobile safety reporting apps
- **Case Study:** Predictive maintenance preventing machinery failure

Training Methodology

- 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	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com