Training Course on Biological Hazards and Infection Control

Professional Development Training Course Outline

Category	Occupational Health	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Biological hazards and infection control have become increasingly significant in global health and occupational safety. With the rise of pandemics, antimicrobial resistance, and zoonotic disease transmission, comprehensive training is essential for frontline workers, healthcare professionals, and environmental safety officers. Training Course on Biological Hazards and Infection Control bridges the gap between awareness and action, equipping participants with advanced infection prevention strategies, risk assessment tools, and hazard containment protocols.

This training emphasizes biohazard identification, infection control compliance, emergency preparedness, and biosafety regulation. Through real-world case studies, trending global data, and simulation-based modules, learners will master disease outbreak response, pathogen containment, disinfection procedures, and effective PPE utilization. Our goal is to create a workforce capable of preventing, controlling, and managing biological threats with precision and accountability.

Programme Curriculum

Training Course on Biological Hazards and Infection Control

Introduction

Biological hazards and infection control have become increasingly significant in global health and occupational safety. With the rise of pandemics, antimicrobial resistance, and zoonotic disease transmission, comprehensive training is essential for frontline workers, healthcare professionals, and environmental safety officers. Training Course on Biological Hazards and Infection Control bridges the gap between awareness and action, equipping participants with advanced infection prevention strategies, risk assessment tools, and hazard containment protocols.

This training emphasizes biohazard identification, infection control compliance, emergency preparedness, and biosafety regulation. Through real-world case studies, trending global data, and simulation-based modules, learners will master disease outbreak response, pathogen containment, disinfection procedures, and effective PPE utilization. Our goal is to

create a workforce capable of preventing, controlling, and managing biological threats with precision and accountability.

Course Objectives

1. Understand the classification and sources of biological hazards in diverse settings.
2. Learn the fundamentals of infection transmission and risk reduction.
3. Apply disinfection, decontamination, and sterilization techniques effectively.
4. Analyze case studies on recent outbreaks and biohazard incidents.
5. Develop personal and institutional infection control plans.
6. Comprehend the role of PPE and hand hygiene in infection prevention.
7. Explore national and international biosafety regulations and guidelines.
8. Identify high-risk occupations and implement hazard control measures.
9. Implement surveillance and early detection systems for bio-threats.
10. Assess the environmental impact of biological contamination.
11. Learn safe waste disposal procedures for infectious materials.
12. Improve emergency response and crisis management for epidemics.
13. Incorporate digital tools and AI for infection monitoring and hazard mapping.

Target Audience

1. Healthcare Professionals
2. Laboratory Technicians
3. Public Health Officers
4. Occupational Health & Safety Managers
5. Emergency Responders
6. Environmental Health Specialists
7. Biomedical Waste Management Teams
8. Hospital Administrators

Course Duration: 5 days

Course Modules

Module 1: Introduction to Biological Hazards

- Definition and types of biological hazards
- Natural vs. man-made biological threats
- High-risk environments and personnel
- Historical pandemics and biological disasters
- Overview of international biosafety levels (BSL 1–4)
- **Case Study**: The Ebola Virus Outbreak in West Africa

Module 2: Infection Control Principles and Practices

- Chain of infection and breaking transmission
- Standard and transmission-based precautions
- Importance of hygiene and sanitation protocols
- Role of ventilation and surface cleaning
- Immunization and post-exposure prophylaxis
- **Case Study**: Infection Control Failures in SARS-CoV-2

Module 3: Personal Protective Equipment (PPE) and Hand Hygiene

- Types and correct usage of PPE
- PPE donning and doffing protocols

- Hand hygiene techniques and compliance
- PPE disposal and sustainability concerns
- Training staff for consistent PPE adherence
- **Case Study**: PPE Shortage During COVID-19 Pandemic

Module 4: Decontamination and Waste Management

- Sterilization and disinfection procedures
- Cleaning agents and effectiveness spectrum
- Handling of contaminated tools and surfaces
- Infectious waste segregation and disposal
- Compliance with OSHA and CDC guidelines
- **Case Study**: Biohazard Waste Mismanagement in Healthcare Facility

Module 5: Risk Assessment and Surveillance Systems

- Identifying and evaluating biological threats
- Hazard mapping and exposure tracking
- Early warning and disease surveillance systems
- Workplace safety audits and biohazard reports
- Integrating AI tools for infection prediction
- **Case Study**: Real-time Surveillance in Avian Influenza Outbreak

Module 6: Biosafety Regulations and Legal Compliance

- WHO, CDC, and NIH biosafety guidelines
- Local and international health laws
- Institutional biosafety committee (IBC) role
- Ethical considerations in infection control
- Regulatory documentation and audit trails
- **Case Study**: Legal Consequences of Biosafety Breach

Module 7: Emergency Preparedness and Epidemic Response

- Pandemic planning and resource allocation
- Isolation, quarantine, and containment practices
- Effective communication during crises
- Staff training for bio-emergency drills
- Coordination with local and global health bodies
- **Case Study**: COVID-19 Emergency Response in Italy

Module 8: Innovations and Future Trends in Infection Control

- Smart PPE and wearable biosensors
- AI-powered outbreak mapping tools
- Telehealth and remote infection monitoring
- Innovations in vaccine development
- Role of biotechnology in future hazard control
- **Case Study**: AI-Driven Contact Tracing in Singapore

Training Methodology

- Interactive lectures with multimedia presentations
- Group discussions and scenario-based role-plays
- Hands-on PPE and decontamination demonstrations
- Analyzing real-time case studies and outbreak data

- Assessments through quizzes and practical exercises
- Certificate of Completion for participants

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
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:

Register Online Now

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