



PB INSTITUTE OF RESEARCH AND TECHNOLOGY

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Nairobi - Kenya

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Biological Hazard Risk Assessment Training

Duration: 10 days

On-Site

01 Who Should Attend

- This course is ideal for;
- Occupational health professionals
- Industrial hygienists
- Safety managers
- HR managers
- Medical professionals (occupational health)
- Facility managers
- Environmental health specialists
- Risk managers
- Compliance officers
- Employees with health and safety responsibilities
- Students of occupational health and industrial hygiene
- Individuals interested in workplace health protection
- Operations managers
- Maintenance personnel
- Health and safety committee members



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02 About the Course

Biological Hazard Risk Assessment: Identifying and Controlling Biohazards equips professionals with the methodologies to systematically assess and manage biological hazards in diverse work environments. This course focuses on analyzing various biohazard types, implementing risk assessment techniques, and understanding the impact of control measures on worker safety and public health. Participants will learn to utilize exposure monitoring tools, develop biosecurity plans, and understand the intricacies of decontamination and waste management. By mastering biological hazard risk assessment, professionals can enhance workplace safety, minimize biological incidents, and contribute to the creation of a secure and compliant environment.

The increasing complexity of biotechnological and healthcare operations necessitates a comprehensive understanding of biological hazard risk assessment. This course delves into the nuances of pathogen classification, exposure pathways, and control effectiveness evaluation, empowering participants to develop and implement tailored risk management strategies. By integrating microbiology principles with risk assessment techniques, this program enables individuals to lead biohazard control initiatives and contribute to the creation of a safe and compliant organizational framework.



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03 Workshop Objectives

- Understand the principles and importance of biological hazard risk assessment.
- Implement techniques for identifying and classifying various types of biological hazards.
- Understand the role of exposure assessment in biological hazard risk assessment.
- Implement techniques for conducting exposure monitoring and measurement of biohazards.
- Understand the principles of biological hazard characterization and risk group classification.
- Implement techniques for evaluating and prioritizing biological risks.
- Understand the role of biosafety control measures in mitigating biological hazards.
- Implement techniques for developing and implementing effective biosafety plans.
- Understand the legal and regulatory requirements related to biological hazard control.
- Implement techniques for conducting decontamination and waste management of biohazards.
- Understand the challenges and opportunities of conducting biological hazard risk assessments in diverse environments.
- Understand the role of employee training and participation in biosafety.
- Develop strategies for continuous improvement in biological hazard risk assessment practices.

04 Module Topics

Module 1: Foundations of Biological Hazard Risk Assessment

- Principles and importance of biological hazard risk assessment.
- Understanding the relationship between biohazards, exposures, and health effects.
- Benefits of proactive biosafety practices.
- Historical context and evolution of biosafety.

Module 2: Biological Hazard Identification and Classification



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- Techniques for identifying and classifying various types of biological hazards (bacteria, viruses, fungi, toxins).
- Implementing hazard identification methods (literature reviews, process reviews, material safety data sheets).
- Utilizing hazard checklists and observation techniques.
- Managing hazard identification.

Module 3: Exposure Assessment in Biological Hazards

- Role of exposure assessment in biological hazard risk assessment.
- Understanding exposure pathways and routes of entry for biohazards.
- Implementing exposure monitoring strategies.
- Managing exposure assessment.

Module 4: Exposure Monitoring and Measurement of Biohazards

- Techniques for conducting exposure monitoring and measurement of biohazards.
- Implementing air sampling, surface sampling, and other measurement techniques.
- Utilizing biological monitoring equipment and software.
- Managing exposure data.

Module 5: Biological Hazard Characterization and Risk Group Classification

- Principles of biological hazard characterization and risk group classification.
- Understanding pathogen virulence, infectivity, and transmission.
- Utilizing risk assessment models and databases.
- Managing hazard evaluation.

Module 6: Risk Evaluation and Prioritization of Biological Hazards

- Techniques for evaluating and prioritizing biological risks.
- Implementing risk ranking and severity assessment.
- Utilizing risk matrices and decision-making tools.
- Managing risk prioritization.



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Module 7: Biosafety Control Measures

- Role of biosafety control measures in mitigating biological hazards.
- Understanding the hierarchy of controls (elimination, substitution, engineering, administrative, PPE).
- Implementing control selection and implementation strategies.
- Managing biosafety controls.

Module 8: Biosafety Plan Development

- Techniques for developing and implementing effective biosafety plans.
- Implementing control implementation and monitoring procedures.
- Utilizing biosafety action plans and documentation.
- Managing biosafety plans.

Module 9: Legal and Regulatory Requirements for Biohazards

- Legal and regulatory requirements related to biological hazard control.
- Implementing compliance with biosafety regulations and standards.
- Utilizing legal registers and compliance tools.
- Managing legal compliance.

Module 10: Decontamination and Waste Management of Biohazards

- Techniques for conducting decontamination and waste management of biohazards.
- Implementing sterilization, disinfection, and waste disposal procedures.
- Utilizing decontamination equipment and waste management protocols.
- Managing decontamination and waste.

Module 11: Biological Hazard Risk Assessments in Diverse Environments



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- Challenges and opportunities of conducting biological hazard risk assessments in diverse environments.
- Implementing biosafety strategies in different laboratory, healthcare, and industrial settings.
- Utilizing biosafety techniques in multinational and global operations.
- Managing biosafety in diverse contexts.

Module 12: Employee Training and Participation in Biosafety

- Role of employee training and participation in biosafety.
- Implementing employee involvement and feedback mechanisms.
- Utilizing employee-led biosafety initiatives.
- Managing employee participation.

Module 13: Continuous Improvement in Biological Hazard Risk Assessment

- Strategies for continuous improvement in biological hazard risk assessment practices.
- Implementing biosafety program evaluation and improvement methods.
- Utilizing feedback mechanisms and performance metrics.
- Managing continuous improvement.

Module 14: Case Studies: Biological Hazard Risk Assessment

- Analyzing real-world examples of biological hazard risk assessments.
- Highlighting best practices and effective risk assessment solutions.
- Documenting project outcomes and impact.
- Industry and biosafety expert testimonials.

Module 15: The Future of Biological Hazard Risk Assessment

- Exploring emerging trends and technologies in biological hazard risk assessment.
- Integrating digital tools, data analytics, and AI in biosafety.
- Adapting to evolving biological threats and biosafety standards.
- Building resilient and proactive biosafety systems.