Biosecurity and Global Health Policy Training Course

Professional Development Training Course Outline

Category	Political Science and International Relations	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Biosecurity and Global Health Policy Training Course is designed to equip professionals with the essential knowledge and practical skills needed to navigate the complex and evolving landscape of **biosecurity**, **global health**, and **policy**. The COVID-19 pandemic and other recent outbreaks have highlighted the critical interconnectedness of human, animal, and environmental health, a concept known as **One Health**. This program delves into the strategic frameworks, legal instruments, and operational best practices required to prevent, detect, and respond to biological threats. Participants will gain a deep understanding of **biorisk management**, **infectious disease surveillance**, and **dual-use research** oversight, ensuring they are prepared to develop and implement robust policies that protect public health and national security.

The curriculum focuses on the intersection of **science, technology, and policy**. It covers the governance of emerging **biotechnologies**, the challenges of **cyberbiosecurity**, and the importance of international cooperation in a world where pathogens and information can cross borders in an instant. This training provides a comprehensive overview of the roles played by international organizations like the **World Health Organization (WHO)** and the **Biological and Toxin Weapons Convention (BTWC)**. By analyzing real-world case studies and engaging in simulations, participants will learn how to apply theoretical knowledge to practical scenarios, fostering a proactive and **resilient** approach to global health security.

Programme Curriculum

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health, and **policy**. The COVID-19 pandemic and other recent outbreaks have highlighted the critical interconnectedness of human, animal, and environmental health, a concept known as **One Health**. This program delves into the strategic frameworks, legal instruments, and operational best practices required to prevent, detect, and respond to biological threats. Participants will gain a deep understanding of **biorisk management**, **infectious disease surveillance**, and **dual-use research** oversight, ensuring they are prepared to develop and implement robust policies that protect public health and national security.

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Course Duration

5 days

Course Objectives

Upon completion of this course, participants will be able to:

1. Analyze **global health security** challenges and emerging biological threats.
2. Differentiate between **biosafety** and **biosecurity** principles and their application.
3. Develop and implement comprehensive **biorisk management** strategies.
4. Evaluate the ethical, legal, and social implications of **dual-use research**.
5. Formulate effective **global health policy** and governance frameworks.
6. Apply **One Health** concepts to prevent and control zoonotic diseases.
7. Design and conduct robust **infectious disease surveillance** and response systems.
8. Assess the risks of **bioterrorism** and the proliferation of biological weapons.
9. Integrate **cyberbiosecurity** measures into health and research systems.
10. Advise on international agreements and regulations, including the **International Health Regulations (IHR)**.
11. Lead and manage crisis response teams during public health emergencies.
12. Communicate complex scientific information to policymakers and the public.
13. Promote inter-agency and international collaboration for **pandemic preparedness**.

Target Audience

This course is designed for a diverse group of professionals, including:

1. Public Health Officials and policymakers.
2. Laboratory Managers and biosafety officers.
3. Government Officials from defense, foreign affairs, and national security agencies.
4. Scientists and researchers in the life sciences and biotechnology.
5. International Relations and diplomacy professionals.
6. Humanitarian Aid and emergency response personnel.
7. Private Sector leaders in the pharmaceutical and biotech industries.
8. Graduate and Postgraduate students in related fields.

Course Outline

Module 1: The Foundations of Biosecurity & Global Health

- Introduction to Biosecurity: Understanding the evolution of biosecurity from a scientific discipline to a national security imperative.
- Defining Global Health: Exploring the interconnectedness of human, animal, and environmental health through the One Health approach.
- Global Health Governance: An overview of key international actors, including the WHO, FAO, and OIE, and their roles in shaping policy.
- The Global Health Security Agenda (GHSA): Analyzing the framework for building global capacity to prevent, detect, and respond to biological threats.
- **Case Study**: The 2014 Ebola Outbreak in West Africa ?Çô Examining the policy failures and successes of the international response.

Module 2: Biorisk Management and Laboratory Biosecurity

- Principles of Biosafety vs. Biosecurity.
- Risk Assessment and Mitigation.
- Laboratory Containment Levels.
- Dual-Use Research of Concern (DURC): Identifying research with the potential for both beneficial and harmful applications and establishing oversight mechanisms.
- **Case Study**: The H5N1 Influenza Research Debate ?Çô A detailed analysis of the ethical and biosecurity considerations of gain-of-function studies.

Module 3: Infectious Disease Surveillance and Public Health Intelligence

- Syndromic Surveillance: Using public health data and non-traditional sources to detect emerging outbreaks in real-time.
- Epidemiological Investigation: The methodology for tracing the source and spread of infectious diseases.
- Data Sharing and Analytics: The role of global networks like GOARN and digital tools in rapid information exchange and analysis.
- Public Health Intelligence: Gathering and analyzing data from various sources to produce actionable intelligence for policymakers.
- **Case Study**: The COVID-19 Pandemic ?Çô How delayed information sharing and surveillance gaps impacted the global response.

Module 4: Policy, Law, and International Agreements

- The International Health Regulations (IHR) 2005: Understanding the legal framework for international cooperation on public health emergencies.
- The Biological and Toxin Weapons Convention (BTWC): Examining the multilateral treaty banning biological weapons and its implementation challenges.
- National Biosecurity Legislation: How countries translate international obligations into domestic law and policy.
- Health Diplomacy: The use of health issues as a vehicle for international cooperation and conflict resolution.
- **Case Study**: The Anthrax Attacks of 2001 ?Çô Analyzing the policy shifts and legislative changes that followed a deliberate biological attack.

Module 5: Threats from Emerging Technologies

- Synthetic Biology: The biosecurity implications of creating new life forms or modifying existing organisms.
- Cyberbiosecurity: Protecting biological data, research, and infrastructure from cyber threats and unauthorized access.
- Artificial Intelligence (AI) and Machine Learning: The dual-use potential of AI in both accelerating scientific discovery and creating new biological risks.
- Bioterrorism and Bio-crime: Differentiating between state and non-state actors and the motivations behind biological attacks.
- **Case Study**: **CRISPR** and Gene Drives ?Çô Exploring the ethical and biosecurity debates surrounding gene-editing technologies.

Module 6: Crisis Communication and Emergency Response

- Risk and Crisis Communication: Developing effective communication strategies to build public trust and manage misinformation during an outbreak.
- Incident Command Systems (ICS): An overview of the standardized approach to managing emergencies.
- Coordination and Collaboration: The importance of inter-agency cooperation between public health, law enforcement, and military sectors.
- Contingency Planning: Developing robust plans for a variety of biological threats, from pandemics to agricultural outbreaks.
- **Case Study**: The 2015 MERS Outbreak in South Korea ?Çô Evaluating a response characterized by poor communication and coordination.

Module 7: Animal Health, Food Security, and Biosecurity

- Zoonotic Diseases: The science of how pathogens jump from animals to humans and the policy implications for prevention.
- Agricultural Biosecurity: Protecting food and livestock from infectious diseases and invasive species.
- Food Safety and Supply Chain Security: Ensuring the safety of the global food supply chain from intentional and unintentional contamination.
- Trade and Biosecurity: The role of international trade agreements and regulations in controlling the spread of biological threats.
- **Case Study**: The Avian Influenza (H5N1) Outbreaks ?Çô Analyzing the policies and protocols implemented to manage a major animal-to-human disease threat.

Module 8: Building a Resilient Future

- Sustainable Biosecurity Systems: Designing long-term strategies for building and maintaining biosecurity capacity in resource-limited settings.
- Financing Global Health Security: The role of international donors and innovative financing models in supporting biosecurity programs.
- Monitoring and Evaluation
- Future Trends: Predicting and preparing for the next generation of biological threats.
- **Final Simulation**: A multi-day, tabletop exercise where participants work in teams to manage a simulated global pandemic, applying the skills and knowledge gained throughout the course.

Training Methodology

The course employs a blended learning methodology to ensure maximum engagement and retention. This includes:

- **Interactive Lectures**: Led by subject matter experts with real-world experience.
- **Case Study Analysis**: In-depth group discussions on historical and contemporary biological threats.
- **Tabletop Exercises & Simulations**: Hands-on practice to apply theoretical knowledge in a controlled, realistic environment.
- **Group Projects**: Collaborative tasks to develop practical policy documents and response plans.
- **Guest Speakers**: Insights from leading professionals from international organizations, government agencies, and the private sector.

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

Start Date	End Date	Location	Price
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

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