Aquatic Biosecurity Protocols Training Course

Professional Development Training Course Outline

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

Course Introduction

Aquatic Biosecurity Protocols Training Course is designed to empower aquaculture professionals, fisheries managers, and environmental scientists with cutting-edge knowledge and practical strategies to mitigate disease risks, enhance aquatic ecosystem health, and ensure sustainable aquaculture operations. This course emphasizes the latest biosecurity frameworks, pathogen control measures, and risk assessment tools to prevent the introduction and spread of infectious agents in freshwater and marine systems. By integrating global best practices, regulatory compliance, and technological innovations, participants will gain a holistic understanding of maintaining high biosecurity standards in modern aquaculture operations.

Through an interactive and applied learning approach, this training equips participants with skills in disease surveillance, quarantine management, water quality monitoring, and emergency response planning. The program fosters critical thinking, problem-solving, and decision-making skills by utilizing real-life case studies, risk analysis scenarios, and laboratory simulations. By the end of the course, professionals will be able to implement robust aquatic biosecurity protocols, enhance operational efficiency, reduce economic losses, and contribute to sustainable aquaculture development worldwide.

Programme Curriculum

Aquatic Biosecurity Protocols Training Course

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Course Duration

5 days

Course Objectives

1. Understand key aquatic pathogens and their transmission pathways.
2. Apply biosecurity risk assessment models in aquaculture systems.
3. Implement effective quarantine and isolation protocols.
4. Develop disease prevention and monitoring strategies.
5. Integrate water quality management techniques to reduce disease risks.
6. Establish emergency response plans for disease outbreaks.
7. Evaluate biosecurity compliance and regulatory frameworks.
8. Utilize molecular diagnostics and pathogen detection tools.
9. Promote sustainable aquaculture practices through biosecurity.
10. Conduct cost-benefit analysis of biosecurity measures.
11. Apply case study insights to real-world aquaculture scenarios.
12. Foster team collaboration and biosecurity awareness programs.
13. Optimize facility design and operational workflows to prevent pathogen spread.

Target Audience

1. Aquaculture farm managers
2. Fisheries officers and government regulators
3. Aquatic veterinarians
4. Marine biologists
5. Hatchery operators
6. Environmental consultants
7. Research scholars in aquaculture
8. Biosecurity compliance auditors

Course Modules

Module 1: Introduction to Aquatic Biosecurity

- Overview of aquatic pathogens and diseases
- Economic and ecological impacts of disease outbreaks
- Biosecurity principles and global guidelines
- Risk analysis frameworks
- Case Study: Viral outbreak management in shrimp farms

Module 2: Disease Identification & Diagnostics

- Common bacterial, viral, and parasitic diseases
- Sample collection and laboratory diagnostics
- Molecular and rapid detection techniques
- Interpreting diagnostic results
- Case Study: Early detection of koi herpesvirus in carp

Module 3: Quarantine & Isolation Protocols

- Design of quarantine facilities
- Isolation procedures for new stock
- Monitoring and record-keeping
- Staff training and SOPs
- Case Study: Preventing pathogen introduction in hatcheries

Module 4: Water Quality & Environmental Management

- Monitoring water parameters (pH, DO, temperature)
- Water treatment and filtration techniques
- Biofilm and pathogen control
- Nutrient management for disease prevention
- Case Study: Algae bloom and bacterial outbreak prevention

Module 5: Disease Prevention & Biosecurity Measures

- Disinfection and sanitation protocols
- Vector control strategies
- Personnel hygiene and protective gear
- Equipment and transport biosecurity
- Case Study: Biosecure shrimp farm operational overhaul

Module 6: Emergency Response & Contingency Planning

- Outbreak investigation protocols
- Containment and eradication strategies
- Communication and reporting procedures
- Post-outbreak evaluation
- Case Study: Managing a sudden viral outbreak in catfish farms

Module 7: Regulatory Compliance & Reporting

- National and international biosecurity regulations
- Certification standards and audits
- Record-keeping and traceability
- Reporting to authorities and stakeholders
- Case Study: Compliance with OIE aquatic animal health standards

Module 8: Sustainable Aquaculture & Continuous Improvement

- Integrating biosecurity into sustainable farming practices
- Risk mitigation through facility design
- Staff training and awareness campaigns
- Continuous monitoring and improvement strategies

- Case Study: Long-term biosecurity implementation in integrated farms

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