Shellfish Production Systems 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

Shellfish aquaculture is a rapidly evolving sector in sustainable seafood production, providing critical solutions for food security, coastal ecosystem restoration, and economic growth. Shellfish Production Systems Training Course is designed to equip participants with advanced knowledge in modern shellfish farming techniques, hatchery management, and integrated coastal resource utilization. Leveraging cutting-edge practices and real-world case studies, the program ensures participants can optimize shellfish growth, enhance water quality management, and implement eco-friendly production systems.

The course emphasizes practical, results-driven learning through hands-on exercises, interactive modules, and case-based simulations. Participants will gain skills in sustainable shellfish cultivation, disease management, feed optimization, and market-oriented production planning. By the end of the training, learners will be prepared to lead shellfish production projects, improve yield efficiency, and contribute to the resilience of coastal aquaculture systems.

Programme Curriculum

Shellfish Production Systems Training Course

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Course Duration

5 days

Course Objectives

1. Understand sustainable shellfish aquaculture practices and ecosystem impact.
2. Master advanced hatchery techniques for oysters, mussels, clams, and scallops.
3. Apply integrated multi-trophic aquaculture (IMTA) approaches.
4. Implement effective shellfish disease diagnostics and biosecurity protocols.
5. Optimize feed and nutrient management for high-yield production.
6. Enhance water quality monitoring and environmental risk assessment.
7. Utilize GIS and digital tools for farm site selection and management.
8. Develop climate-resilient shellfish production strategies.
9. Apply value chain analysis for market-oriented shellfish production.
10. Integrate sustainable certification and eco-labeling standards.
11. Conduct economic feasibility studies for shellfish farm projects.
12. Implement post-harvest handling, processing, and packaging best practices.
13. Analyze real-world case studies to improve operational efficiency.

Target Audience

1. Shellfish farmers and aquaculture entrepreneurs
2. Coastal resource managers
3. Marine biology and aquaculture students
4. Government fisheries officers
5. Environmental NGOs working on sustainable aquaculture
6. Seafood quality assurance professionals
7. Aquaculture consultants and extension officers
8. Investors in aquaculture and blue economy projects

Course Modules

Module 1: Introduction to Shellfish Production Systems

- Overview of global shellfish aquaculture trends
- Types of shellfish and their market potential
- Environmental and economic importance of shellfish
- Principles of sustainable aquaculture
- Case study: Successful oyster farms in Europe

Module 2: Hatchery Techniques and Larval Rearing

- Broodstock selection and management
- Larval rearing protocols for oysters, clams, mussels, and scallops
- Water quality control and nutrient management

- Disease prevention strategies
- Case study: Mussel hatchery optimization in New Zealand

Module 3: Nursery and Grow-out Systems

- Nursery systems design and management
- Grow-out methods: racks, longlines, and cages
- Stocking density and growth optimization
- Predator and biofouling management
- Case study: Longline oyster farms in France

Module 4: Disease Management and Biosecurity

- Common shellfish diseases and their identification
- Biosecurity protocols for hatcheries and farms
- Integrated pest management strategies
- Disease outbreak response planning
- Case study: Clam mortality mitigation in the US

Module 5: Water Quality and Environmental Monitoring

- Key water quality parameters for shellfish health
- Monitoring tools and techniques
- Environmental risk assessment
- Waste and effluent management
- Case study: Eco-friendly water management in Asian mussel farms

Module 6: Nutrition and Feeding Strategies

- Feed formulations for shellfish species
- Microalgae cultivation and use
- Nutrient enrichment and growth enhancement
- Feed monitoring and efficiency optimization
- Case study: Oyster growth optimization in hatcheries

Module 7: Farm Management and Technology Integration

- Site selection using GIS and remote sensing
- Farm layout and operational planning
- Digital monitoring and farm automation
- Record keeping and performance analysis
- Case study: Smart shellfish farms in Australia

Module 8: Post-harvest Processing and Market Strategies

- Harvesting techniques and timing
- Handling, storage, and packaging best practices
- Value addition and processing innovations
- Marketing and export standards
- Case study: Market-oriented scallop production in Canada

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
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

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