# Aquaculture Nutrition and Feeding Training Course

Professional Development Training Course Outline

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

## Course Introduction

Aquaculture Nutrition and Feeding is a vital discipline in sustainable aquaculture practices, focusing on optimizing fish and shellfish growth through scientifically formulated diets and feeding strategies. Aquaculture Nutrition and Feeding Training Course empowers aquaculture professionals with cutting-edge knowledge on feed formulation, nutrient requirements, and feeding management to boost productivity, reduce feed waste, and minimize environmental impact. Participants will gain practical insights into fish physiology, feed ingredient evaluation, and the latest trends in sustainable feed development to enhance aquaculture profitability.

The course combines theoretical concepts with real-world applications, enabling attendees to address common nutritional challenges, improve feed conversion ratios, and implement best practices for feed management. Through interactive sessions and case studies, learners will develop the skills required for efficient feed utilization and sustainable aquaculture production in line with global market demands and environmental regulations.

## Programme Curriculum

**Aquaculture Nutrition and Feeding Training Course**

**Introduction**

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**Course Duration**

5 days

**Course Objectives**

1. Understand the fundamentals of aquaculture nutrition and fish feed formulation.
2. Analyze the nutrient requirements of various cultured species for optimal growth.
3. Learn sustainable feed ingredient alternatives and their impact on fish health.
4. Master the techniques of feed manufacturing and quality control.
5. Evaluate feed conversion ratios (FCR) to enhance production efficiency.
6. Identify nutritional disorders and develop corrective feeding strategies.
7. Explore advancements in functional feeds and probiotics in aquaculture.
8. Assess environmental impacts of feeding practices and sustainable feed management.
9. Apply precision feeding technologies for minimizing feed wastage.
10. Gain expertise in digestive physiology and nutrient absorption mechanisms.
11. Implement best practices in feed storage and handling.
12. Understand economic aspects of feed formulation and cost optimization.
13. Utilize data-driven approaches for monitoring and improving feeding strategies.

**Target Audience**

- Aquaculture farmers and hatchery managers
- Fish nutritionists and feed formulators
- Aquaculture researchers and academicians
- Feed industry professionals and quality controllers
- Extension officers and aquaculture consultants
- Environmental managers in aquaculture
- Government and regulatory agency staff
- Students pursuing aquaculture and fisheries science

**Course Modules**

**Module 1: Introduction to Aquaculture Nutrition**

- Basic fish nutrition principles
- Nutrient classification and functions
- Species-specific nutrient requirements
- Case study: Nutrient profile analysis of tilapia feed
- Role of nutrition in growth and reproduction

**Module 2: Feed Ingredients and Formulation**

- Types of feed ingredients: protein, lipids, carbohydrates
- Evaluation of local and alternative feed resources
- Feed formulation software and tools

- Case study: Formulation of cost-effective shrimp feed
- Balancing amino acids and fatty acids in feeds

**Module 3: Feed Manufacturing and Quality Control**

- Feed pelletizing and extrusion techniques
- Quality control parameters and testing
- Feed stability and shelf life
- Case study: Impact of pellet quality on feed intake in catfish
- Feed safety and contamination control

**Module 4: Feeding Management Practices**

- Feeding schedules and ration calculation
- Feeding behavior and feed intake monitoring
- Precision feeding technologies
- Case study: Feeding strategy improvements in trout farms
- Reducing feed wastage and environmental pollution

**Module 5: Nutritional Physiology and Digestive Mechanisms**

- Digestive enzymes and nutrient absorption
- Metabolic pathways in fish
- Effects of nutrition on immunity
- Case study: Digestive enzyme activity in carp fed with probiotics
- Nutritional adaptations to different culture systems

**Module 6: Functional and Sustainable Feeds**

- Use of probiotics, prebiotics, and immunostimulants
- Plant-based and insect-based protein alternatives
- Enhancing feed sustainability and circular economy
- Case study: Performance of fish fed with insect meal-based diets
- Regulatory considerations for novel feed ingredients

**Module 7: Feed Storage, Handling, and Economics**

- Best practices for feed storage and preservation
- Minimizing feed spoilage and nutrient loss
- Cost-benefit analysis of feeding programs
- Case study: Economic impact of improved feed handling in aquaculture
- Feed budgeting and supply chain management

**Module 8: Environmental Impact and Waste Management**

- Effects of feed on water quality and sediment
- Strategies to reduce nutrient leaching
- Waste treatment and recycling in aquaculture systems
- Case study: Managing feed waste in recirculating aquaculture systems (RAS)
- Policies and standards for environmental sustainability

## 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:

**Register Online Now**

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