Functional Foods and Nutraceutical Development Training Course

Professional Development Training Course Outline

Category	Food processing and Technology	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The global demand for functional foods and nutraceuticals has been steadily rising due to increased consumer awareness about health, wellness, and disease prevention. Functional Foods and Nutraceutical Development Training Course provides participants with in-depth knowledge, practical insights, and applied strategies for developing, formulating, and marketing nutraceuticals and functional food products. By leveraging the latest innovations in food science, biotechnology, and nutrition, this program equips participants with the necessary expertise to create evidence-based and market-ready products that meet regulatory and consumer requirements.

Functional foods and nutraceuticals represent one of the fastest-growing sectors in the food and healthcare industry, driven by trends such as personalized nutrition, plant-based diets, and bioactive compounds. This training provides learners with comprehensive exposure to product innovation, safety regulations, intellectual property, supply chain strategies, and market positioning. It is designed to empower professionals, entrepreneurs, and organizations to capitalize on emerging opportunities within the nutraceuticals and functional food sector.

Programme Curriculum

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Course Objectives

1. Understand the fundamentals of functional foods and nutraceutical product development.
2. Explore global market trends and consumer demand patterns.
3. Examine bioactive compounds and their therapeutic roles.
4. Analyze food biotechnology applications for product innovation.
5. Understand regulatory frameworks and compliance requirements.
6. Identify safety and quality assurance protocols.
7. Gain insights into clinical trials and evidence-based validation.
8. Develop skills in product design and formulation.
9. Assess packaging, labeling, and intellectual property issues.
10. Apply marketing strategies for nutraceuticals and functional foods.
11. Evaluate supply chain and distribution management.
12. Learn sustainability and eco-friendly approaches in production.
13. Study future innovations and emerging technologies.

Organizational Benefits

- Improved organizational capacity in functional food research and development.
- Enhanced compliance with regulatory standards.
- Increased innovation and competitiveness in nutraceutical markets.
- Expanded opportunities for product diversification.
- Strengthened brand positioning through evidence-based strategies.
- Increased employee knowledge and applied skills.
- Better decision-making in product commercialization.
- Enhanced collaboration across R&D and marketing teams.
- Improved customer trust and market acceptance.
- Long-term sustainability in health-focused product development.

Target Audiences

1. Food scientists and technologists
2. Nutritionists and dietitians
3. Healthcare professionals
4. Biotechnologists and researchers
5. Entrepreneurs in food and wellness industries
6. Quality assurance and regulatory officers
7. Marketing and product managers
8. Academic and industry consultants

Course Duration: 10 days

Course Modules

Module 1: Introduction to Functional Foods and Nutraceuticals

- Understanding functional foods vs nutraceuticals
- Key health benefits and global perspectives
- Drivers of consumer demand
- Nutritional trends shaping the industry
- Case study: Global rise of probiotics and prebiotics
- Emerging opportunities in the market

Module 2: Bioactive Compounds and Health Benefits

- Types of bioactive compounds
- Role in disease prevention and management
- Mechanisms of action in human health
- Challenges in stability and delivery
- Case study: Omega-3 fatty acids in cardiovascular health
- Innovations in bioactive formulation

Module 3: Food Biotechnology and Innovation

- Applications of biotechnology in functional foods
- Fermentation and enzymatic technologies
- Genetic engineering for nutraceuticals
- Role of nanotechnology in delivery systems
- Case study: Probiotic yogurt development
- Ethical considerations in biotechnology

Module 4: Nutraceutical Product Development Process

- Stages of product development
- Market research and consumer profiling
- Ingredient sourcing and formulation
- Testing and validation protocols
- Case study: Fortified cereals for immunity
- Commercialization strategies

Module 5: Regulatory Frameworks and Compliance

- International regulatory standards (FDA, EFSA, FSSAI)
- Labeling and health claim regulations
- Risk assessment and product approval
- Intellectual property and patents
- Case study: Approval process of herbal nutraceuticals
- Navigating cross-border trade regulations

Module 6: Safety, Quality, and Assurance in Nutraceuticals

- Good Manufacturing Practices (GMP)

- Hazard Analysis Critical Control Points (HACCP)
- Quality testing and analytical methods
- Shelf-life determination and stability testing
- Case study: Quality assurance in functional beverages
- Standardization of herbal formulations

Module 7: Clinical Trials and Validation

- Importance of scientific validation
- Designing clinical studies for nutraceuticals
- Ethical considerations in trials
- Evidence-based documentation and claims
- Case study: Clinical trials of curcumin supplements
- Challenges in trial design and execution

Module 8: Product Design and Formulation

- Techniques in formulation science
- Functional ingredient combinations
- Sensory evaluation and consumer acceptance
- Packaging considerations for stability
- Case study: Development of plant-based protein powders
- Cost optimization in formulation

Module 9: Packaging, Labeling, and Intellectual Property

- Role of packaging in preservation
- Labeling requirements and consumer trust
- Innovations in eco-friendly packaging
- Protecting intellectual property rights
- Case study: Trademarking of nutraceutical brands
- Packaging design for market differentiation

Module 10: Marketing Strategies for Functional Foods

- Branding in the wellness industry
- Digital marketing and influencer partnerships
- Consumer psychology and buying behavior
- Pricing and positioning strategies
- Case study: Marketing of collagen supplements
- Social media campaigns for nutraceuticals

Module 11: Supply Chain and Distribution

- Sourcing raw materials sustainably
- Logistics and cold chain management
- Retail vs e-commerce strategies
- Partnerships with healthcare providers
- Case study: Supply chain model for probiotics
- Global distribution challenges

Module 12: Sustainability in Functional Food Development

- Eco-friendly sourcing of ingredients
- Waste reduction and green packaging
- Sustainable manufacturing practices
- Carbon footprint reduction strategies
- Case study: Plant-based meat alternatives
- Role of circular economy in nutraceuticals

Module 13: Future Trends and Innovations

- Personalized nutrition and nutrigenomics
- AI and big data in product design
- Functional beverages and next-gen supplements
- Microbiome-targeted functional foods
- Case study: Gut health and microbiome research
- Future growth opportunities

Module 14: Business Models and Entrepreneurship in Nutraceuticals

- Startup ecosystem in nutraceuticals
- Business planning and funding opportunities
- Innovation hubs and accelerators
- Global expansion strategies
- Case study: Startup success in plant-based nutraceuticals
- Risk management in new ventures

Module 15: Case Study Applications and Capstone Project

- Application of knowledge in real scenarios
- Group case analysis and presentations
- Cross-functional collaboration exercises
- Problem-solving with product innovation
- Case study: Launching a functional beverage brand
- Capstone project: Designing a market-ready nutraceutical

Training Methodology

- Interactive lectures with multimedia presentations
- Hands-on practical sessions with product design focus
- Group discussions and peer-to-peer learning
- Case study analysis and real-world applications
- Industry expert guest lectures
- Final capstone project presentation

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	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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