Dairy Processing Technology (Milk, Cheese, Yogurt) 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 dairy industry is one of the fastest-growing sectors in the global food processing industry, driven by increasing consumer demand for safe, nutritious, and high-quality dairy products. Dairy Processing Technology Training Course has been designed to provide participants with in-depth knowledge, hands-on skills, and practical case studies related to milk, cheese, and yogurt processing. The course integrates modern dairy technologies, sustainable production techniques, food safety standards, and value-added innovations to meet industry demands. Participants will gain exposure to advanced dairy processing methods, quality control measures, and the use of digital transformation in dairy operations.

This course aims to bridge the gap between theory and practice by providing structured modules, real-life case studies, and industry-driven best practices. By focusing on trending topics such as automation in dairy plants, HACCP compliance, sustainable dairy farming, product diversification, and international market trends, learners will be equipped with the tools to improve productivity, ensure product safety, and achieve profitability. This training is suitable for professionals, entrepreneurs, and organizations seeking competitive advantage in the global dairy sector.

Programme Curriculum

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Course Objectives

1. To provide comprehensive knowledge of dairy processing technologies for milk, cheese, and yogurt.
2. To enhance technical expertise in hygienic milk collection, storage, and handling.
3. To train participants on modern dairy plant equipment and automation systems.
4. To apply international food safety standards, HACCP, and ISO compliance.
5. To explore sustainable and eco-friendly dairy processing practices.
6. To improve skills in product diversification and value addition in dairy.
7. To strengthen capacity in quality assurance and laboratory testing techniques.
8. To develop innovation strategies for small- and large-scale dairy enterprises.
9. To analyze global dairy industry trends and export opportunities.
10. To provide hands-on exposure to packaging, labeling, and shelf-life management.
11. To improve knowledge of fermentation processes in yogurt and cheese production.
12. To build managerial and operational skills for efficient dairy plant management.
13. To integrate digital technologies and data-driven decision-making in dairy processing.

Organizational Benefits

- Improved efficiency in dairy production and processing operations.
- Enhanced product quality and compliance with global standards.
- Reduced losses through better handling and processing techniques.
- Adoption of sustainable practices that reduce environmental impact.
- Increased capacity for product diversification and innovation.
- Competitive advantage in domestic and international dairy markets.
- Improved workforce competency and technical know-how.
- Higher profitability through cost-effective operations.
- Better customer trust through consistent product quality.
- Strengthened organizational reputation in the dairy sector.

Target Audiences

- Dairy plant managers
- Food technologists
- Dairy farmers and cooperatives
- Quality assurance officers
- Dairy entrepreneurs and startups
- Research and development professionals
- Government and regulatory officers
- Supply chain and marketing professionals

Course Duration: 10 days

Course Modules

Module 1: Introduction to Dairy Processing

- Importance of the dairy industry in food systems
- Overview of milk, cheese, and yogurt production
- Dairy sector trends and opportunities
- Key challenges in dairy processing
- Global dairy consumption patterns
- Case study: Evolution of dairy processing in Europe

Module 2: Milk Collection and Handling

- Hygienic collection of raw milk
- Cold chain management in dairy supply
- Storage techniques for quality retention
- Prevention of contamination during handling
- Transportation logistics for dairy supply
- Case study: Milk collection systems in India

Module 3: Milk Processing Technology

- Pasteurization techniques and applications
- Homogenization process and importance
- Sterilization methods in milk processing
- Fortification of milk with nutrients
- Shelf-life extension techniques
- Case study: Ultra-high-temperature milk processing

Module 4: Cheese Processing Technology

- Types of cheese and classification
- Raw materials and ingredients for cheese making
- Fermentation and curd formation
- Maturation and ripening processes
- Packaging and storage of cheese
- Case study: Artisanal cheese production in France

Module 5: Yogurt Processing Technology

- Starter cultures used in yogurt production
- Fermentation process for yogurt manufacturing
- Flavoring and fortification of yogurt
- Yogurt packaging techniques
- Shelf-life stability of yogurt products
- Case study: Growth of probiotic yogurt in Japan

Module 6: Food Safety in Dairy Processing

- HACCP implementation in dairy plants

- ISO 22000 and FSSC standards
- Microbiological testing and quality control
- Traceability in dairy supply chains
- Risk management in dairy processing
- Case study: Food safety crisis in dairy recalls

Module 7: Dairy Plant Equipment and Automation

- Types of equipment used in dairy processing
- Automation systems for improved efficiency
- Maintenance and calibration of dairy machinery
- Energy-saving technologies in dairy plants
- Digital monitoring systems for dairy operations
- Case study: Automated cheese plant in Switzerland

Module 8: Sustainable Dairy Processing

- Water and energy conservation in dairy plants
- Eco-friendly packaging solutions
- Waste management in dairy processing
- Carbon footprint reduction techniques
- Circular economy in dairy industries
- Case study: Sustainable dairy model in New Zealand

Module 9: Product Diversification in Dairy

- Development of flavored milk varieties
- Fortified dairy beverages
- Value addition in cheese and yogurt
- Niche products such as lactose-free milk
- Emerging markets for functional dairy foods
- Case study: Expansion of flavored dairy drinks in Africa

Module 10: Quality Assurance and Laboratory Techniques

- Physicochemical analysis of milk and dairy products
- Microbial quality testing methods
- Sensory evaluation of dairy foods
- Use of rapid testing kits for dairy analysis
- Laboratory safety in dairy testing
- Case study: Milk adulteration testing in developing countries

Module 11: Packaging and Labeling of Dairy Products

- Modern packaging technologies for dairy
- Labeling requirements and compliance
- Shelf-life extension through packaging
- Role of cold storage and logistics
- Branding through packaging design
- Case study: Innovative dairy packaging in Scandinavia

Module 12: Fermentation and Bioprocessing

- Microbiology of dairy fermentation
- Role of enzymes and cultures
- Bioprocess engineering in dairy
- Innovations in fermentation technology
- Challenges in large-scale fermentation
- Case study: Probiotic fermentation success in the US

Module 13: Dairy Plant Management

- Human resource management in dairy plants
- Operational workflow design
- Safety and risk assessment protocols
- Cost optimization strategies
- Regulatory compliance management
- Case study: Lean dairy operations in the Netherlands

Module 14: Global Dairy Markets

- International trade in dairy products
- Export opportunities and barriers
- Consumer trends in global dairy
- Market entry strategies for exporters
- Competitor analysis in dairy markets
- Case study: Dairy exports from Ireland

Module 15: Digital Transformation in Dairy Processing

- Use of IoT in dairy supply chains
- Data-driven decision-making in dairy operations
- Smart sensors for quality control
- Blockchain for dairy traceability
- Artificial intelligence in dairy processing
- Case study: Blockchain in New Zealand?ÇÖs dairy exports

Training Methodology

- Interactive lectures and expert presentations
- Practical demonstrations in dairy processing labs
- Group discussions and peer-to-peer learning
- Case study analysis of global dairy enterprises
- Hands-on training with modern equipment
- Field visits to dairy plants and processing units

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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