Processing of Dairy Whey and By-Products Training Course

Professional Development Training Course Outline

Category	Food processing and Technology	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The dairy industry generates a significant amount of whey as a by-product of cheese and yogurt production. Effective processing of dairy whey and its by-products is crucial to maximize revenue streams, reduce environmental impact, and enhance product innovation. Processing of Dairy Whey and By-Products Training Course provides an in-depth understanding of dairy whey processing techniques, nutritional value enhancement, and industrial applications. Participants will gain practical insights into modern whey utilization, quality control measures, and sustainable processing methods that align with current industry trends.

With the increasing global demand for functional foods, protein supplements, and lactose-free products, mastering dairy whey processing offers strategic advantages. This course equips professionals with technical knowledge, hands-on experience, and problem-solving skills to efficiently convert whey into high-value products such as whey protein concentrates, hydrolysates, lactose derivatives, and bioactive compounds. By the end of this program, participants will have a holistic understanding of whey transformation and its commercial potential, supporting organizational growth and innovation.

Programme Curriculum

Processing of Dairy Whey and By-Products Training Course

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Course Objectives

1. Understand the composition and properties of dairy whey and its by-products.
2. Explore the latest whey processing technologies including ultrafiltration, microfiltration, and nanofiltration.
3. Learn techniques for producing whey protein concentrates and isolates.
4. Examine lactose recovery and purification methods.
5. Understand whey fermentation processes and production of bioactive peptides.
6. Explore industrial applications of whey in food, nutraceutical, and cosmetic sectors.
7. Implement quality control and safety measures in whey processing.
8. Learn cost-effective and sustainable whey utilization strategies.
9. Understand regulatory requirements and standards for whey-based products.
10. Gain practical insights into whey powder production and packaging.
11. Analyze market trends and opportunities in whey-derived products.
12. Develop skills in whey valorization to minimize environmental impact.
13. Conduct troubleshooting and optimization in whey processing operations.

Organizational Benefits

- Enhanced product portfolio and diversification
- Increased revenue from whey by-products
- Improved sustainability and waste management
- Compliance with food safety regulations
- Reduction in processing costs
- Development of high-value nutritional products
- Strengthened market competitiveness
- Improved staff technical expertise
- Enhanced operational efficiency
- Support for innovation in functional foods and supplements

Target Audiences

- Dairy processing professionals
- Quality control and assurance personnel
- Food technologists and technologists in functional foods
- Production supervisors and plant managers
- R&D and innovation teams
- Regulatory compliance officers
- Nutritionists and dieticians
- Entrepreneurs and investors in dairy sector

Course Duration: 5 days

Course Modules

Module 1: Introduction to Dairy Whey and By-Products

- Composition and nutritional profile of whey
- Classification of whey and by-products
- Global trends in whey utilization
- Environmental considerations in whey disposal
- Economic importance of whey valorization
- Case study: Successful whey management in a commercial cheese plant

Module 2: Whey Processing Technologies

- Filtration techniques: ultrafiltration, microfiltration, nanofiltration
- Concentration and drying methods
- Membrane selection and maintenance
- Energy efficiency in processing
- Integration of processing lines
- Case study: Implementation of ultrafiltration in whey protein production

Module 3: Whey Protein Products

- Production of whey protein concentrates and isolates
- Functional properties of whey proteins
- Application in food and nutraceutical products
- Stability and solubility considerations
- Quality control of protein products
- Case study: Development of high-protein beverages using whey isolate

Module 4: Lactose Recovery and Applications

- Lactose extraction and purification
- Crystallization techniques
- Lactose-based products and applications
- Regulatory standards for lactose content
- Optimization of yield and purity
- Case study: Lactose recovery from cheese whey in industrial setup

Module 5: Fermentation and Bioactive Compounds

- Microbial fermentation of whey
- Production of bioactive peptides and nutraceuticals
- Enzymatic hydrolysis techniques
- Health benefits of bioactive whey components
- Quality assurance in fermentation products
- Case study: Production of functional peptides from whey

Module 6: Whey Powder Production and Packaging

- Spray drying and other drying techniques
- Powder properties and solubility
- Packaging and storage considerations

- Shelf-life optimization
- Market trends in whey powders
- Case study: Commercial-scale whey powder production

Module 7: Quality Control and Regulatory Compliance

- Food safety standards for whey products
- Microbiological and chemical testing
- Traceability and documentation
- Handling recalls and non-compliance
- Certification procedures
- Case study: Implementation of HACCP in whey processing plant

Module 8: Marketing, Valorization, and Sustainability

- Economic analysis of whey utilization
- Sustainable processing practices
- Product innovation and market opportunities
- Branding and commercialization strategies
- Cost-benefit analysis for by-product utilization
- Case study: Launch of whey-based functional food product

Training Methodology

- Interactive lectures and presentations
- Hands-on laboratory demonstrations
- Group discussions and problem-solving exercises
- Case study analysis and practical examples
- On-site process observation
- Q&A sessions with industry experts

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
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

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