Industrial Starch Processing Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The Industrial Starch Processing Training Course is a specialized program designed for professionals seeking advanced knowledge and practical skills in the production, modification, and application of starch in industrial settings. With the increasing demand for starch in food, pharmaceutical, textile, paper, and biodegradable materials, this course equips participants with cutting-edge insights into modern processing techniques, quality optimization, and sustainable production practices. Participants will gain hands-on experience in starch extraction, purification, enzymatic conversion, and product formulation, ensuring they are industry-ready to tackle operational challenges and improve efficiency.

This training emphasizes a practical, case-driven approach, integrating real-world examples, industrial workflows, and troubleshooting strategies. Attendees will explore the latest trends in bio-based materials, starch derivatives, functional ingredients, and process automation, enhancing their ability to innovate and optimize industrial starch applications. By the end of the course, participants will possess a comprehensive understanding of both traditional and modern starch processing technologies, positioning themselves as valuable assets in the rapidly evolving starch industry.

Programme Curriculum

Industrial Starch Processing Training Course

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5 days

Course Objectives

1. Understand the fundamentals of starch chemistry and functionality.
2. Learn industrial starch extraction and purification techniques.
3. Explore enzymatic and chemical starch modification methods.
4. Develop skills in starch-based product formulation.
5. Analyze process optimization strategies for starch production.
6. Gain expertise in quality control and regulatory compliance.
7. Investigate sustainable and eco-friendly starch processing practices.
8. Learn to troubleshoot common industrial starch processing challenges.
9. Explore biodegradable starch-based materials and innovations.
10. Understand starch applications in food, paper, textiles, and pharmaceuticals.
11. Implement process automation and digital monitoring in starch production.
12. Examine case studies of successful industrial starch operations.
13. Enhance leadership and decision-making skills in starch manufacturing.

Target Audience

1. Food technologists and product developers
2. Chemical and process engineers
3. Quality assurance and control professionals
4. Research and development scientists
5. Industrial production managers
6. Entrepreneurs in starch-based industries
7. Sustainability and environmental specialists
8. Technical consultants in agro-processing

Course Modules

Module 1: Introduction to Starch and its Industrial Importance

- Overview of starch chemistry and structure
- Global market trends and industry applications
- Starch in food, pharma, textile, and paper industries
- Functional properties and industrial significance
- **Case Study:** Market-driven starch product innovation

Module 2: Starch Extraction Techniques

- Wet milling and dry milling processes
- Enzymatic extraction methods
- Purification and drying technologies
- Process efficiency and yield optimization
- **Case Study:** High-yield corn starch extraction process

Module 3: Starch Modification Processes

- Physical, chemical, and enzymatic modification methods
- Pre-gelatinization and cross-linking techniques
- Functional derivatives: resistant, modified, and hydrolyzed starch
- Quality and performance evaluation
- **Case Study:** Development of modified starch for industrial adhesives

Module 4: Industrial Process Optimization

- Workflow analysis and process mapping
- Equipment selection and scaling up operations
- Energy and cost efficiency strategies
- Troubleshooting common production issues
- **Case Study:** Optimizing starch production in a mid-scale plant

Module 5: Quality Assurance and Regulatory Compliance

- Standard testing methods for starch quality
- Food and pharmaceutical regulatory requirements
- HACCP and GMP practices
- Documentation and traceability
- **Case Study:** Implementing quality control in a starch manufacturing unit

Module 6: Starch in Food and Beverage Applications

- Thickening, gelling, and stabilizing applications
- Functional and specialty starch in processed foods
- Fortification and clean-label trends
- Shelf-life and storage considerations
- **Case Study:** Starch-based innovations in gluten-free products

Module 7: Industrial Applications Beyond Food

- Starch in textiles, paper, adhesives, and biodegradable plastics
- Biopolymer development and sustainable applications
- Coatings and surface modification uses
- Industrial performance evaluation
- **Case Study:** Eco-friendly starch-based packaging solutions

Module 8: Advanced Topics and Future Trends

- Biotechnological advancements in starch production
- Automation, AI, and digital monitoring in processing
- Emerging global markets and commercialization strategies
- Sustainability and circular economy in starch industry

- **Case Study:** AI-driven optimization in starch processing plants

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
07 Sep 2026	11 Sep 2026	Online	$1,000
07 Sep 2026	11 Sep 2026	Physical	$1,500

Start Date	End Date	Location	Price
14 Sep 2026	18 Sep 2026	Online	$1,000
14 Sep 2026	18 Sep 2026	Physical	$1,500
21 Sep 2026	25 Sep 2026	Online	$1,000
21 Sep 2026	25 Sep 2026	Physical	$1,500
28 Sep 2026	02 Oct 2026	Online	$1,000
28 Sep 2026	02 Oct 2026	Physical	$1,500

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

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