Brewing and Distillation Technologies 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

Brewing and Distillation Technologies Training Course is designed to equip learners with advanced knowledge and practical skills in beer brewing science, fermentation technology, distillation processes, beverage engineering, and quality control systems. As the global craft beverage industry expands rapidly, demand for skilled professionals in craft brewing, industrial distillation, alcohol production technology, and beverage innovation continues to grow. This course integrates modern biochemical fermentation principles, process automation, hygiene standards, and sustainable production techniques to prepare participants for real-world industrial applications.

This training emphasizes hands-on mastery of mashing, wort production, yeast management, distillation column operation, spirit aging, flavor profiling, and laboratory quality assurance testing. Participants will gain exposure to both traditional and modern systems including craft brewery setups, industrial distilleries, continuous distillation systems, and smart brewing technologies. By the end of the program, learners will be capable of optimizing production efficiency, ensuring product consistency, and meeting global beverage safety and compliance standards in the highly competitive alcoholic beverage manufacturing industry.

Programme Curriculum

Brewing and Distillation Technologies Training Course

Introduction

Brewing and Distillation Technologies Training Course is designed to equip learners with advanced knowledge and practical skills in beer brewing science, fermentation technology, distillation processes, beverage engineering, and quality control systems. As the global craft beverage industry expands rapidly, demand for skilled professionals in craft brewing, industrial distillation, alcohol production technology, and beverage innovation continues to grow. This course integrates modern biochemical fermentation principles, process

automation, hygiene standards, and sustainable production techniques to prepare participants for real-world industrial applications.

This training emphasizes hands-on mastery of mashing, wort production, yeast management, distillation column operation, spirit aging, flavor profiling, and laboratory quality assurance testing. Participants will gain exposure to both traditional and modern systems including craft brewery setups, industrial distilleries, continuous distillation systems, and smart brewing technologies. By the end of the program, learners will be capable of optimizing production efficiency, ensuring product consistency, and meeting global beverage safety and compliance standards in the highly competitive alcoholic beverage manufacturing industry.

Course Duration

5 days

Course Objectives

1. Master fundamentals of brewing science and fermentation technology
2. Understand distillation principles and alcohol separation techniques
3. Apply yeast management and microbial control strategies
4. Operate brew house and distillation equipment efficiently
5. Develop skills in beer and spirit recipe formulation
6. Implement quality assurance and laboratory testing protocols
7. Ensure compliance with food safety and beverage industry regulations
8. Optimize production efficiency and process automation systems
9. Analyze raw materials including malt, hops, grains, and yeast strains
10. Manage flavor development and sensory evaluation techniques
11. Apply cleaning-in-place (CIP) and sanitation standards
12. Integrate sustainable brewing and energy-efficient distillation methods
13. Prepare for careers in craft brewing, distilleries, and beverage production plants

Target Audience

1. Aspiring craft brewers and distillers
2. Beverage industry technicians and production staff
3. Food science and biotechnology students
4. Hospitality and hotel beverage managers
5. Entrepreneurs in craft beer and spirits business
6. Quality control and laboratory analysts
7. Industrial engineers in food and beverage sector
8. Career changers entering alcohol production industry

Course Modules

Module 1: Introduction to Brewing Science

- History and evolution of brewing industry
- Basics of fermentation and microbiology
- Raw materials-malt, hops, water, yeast
- Brewing styles and global beer categories
- Case Study: Development of a small craft brewery startup model

Module 2: Malting and Mashing Process

- Grain selection and malting technology
- Enzyme activity in starch conversion
- Mash tun operations and temperature control
- Wort extraction techniques
- Case Study: Efficiency improvement in industrial mash filtration system

Module 3: Fermentation Technology

- Yeast propagation and metabolism
- Anaerobic fermentation systems
- Temperature and pressure control
- Alcohol formation and by-products
- Case Study: Optimization of fermentation yield in lager production

Module 4: Brewing Equipment & Automation

- Brew house systems and components
- Pumps, boilers, and heat exchangers
- PLC and IoT-enabled brewing systems
- Process monitoring and control systems
- Case Study: Automation upgrade in a mid-size brewery plant

Module 5: Distillation Principles & Systems

- Pot still vs column still operations
- Vapor-liquid separation science
- Fractional distillation techniques
- Spirit concentration control
- Case Study: Whiskey distillery efficiency enhancement project

Module 6: Spirit Maturation & Flavor Development

- Barrel aging and wood chemistry
- Flavor profiling techniques
- Blending and consistency control
- Sensory evaluation methods
- Case Study: Premium rum aging optimization process

Module 7: Quality Control & Laboratory Analysis

- Alcohol measurement and density testing
- pH, turbidity, and microbial testing
- HACCP and food safety standards
- Product consistency assurance
- Case Study: Contamination control in beer production facility

Module 8: Industrial Scaling & Sustainability

- Scaling from microbrewery to industrial production
- Waste management and by-product utilization
- Energy-efficient brewing systems
- Sustainable water usage practices

- Case Study: Green brewery transformation project

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

Start Date	End Date	Location	Price
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

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

Register Online Now

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