



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

Tel: +27 12 004 8389 · Mobile: +27 65 077 6310

Email: apply@aaticd.co.za · Website: www.aaticd.co.za

COURSE BROCHURE

Fermenting Raw Product for Beverage Distilling

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 259340 · NQF Level 3 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to ferment raw products for beverage distilling purposes. It covers the principles of fermentation, selection of raw materials, and monitoring of the fermentation process to ensure quality and consistency. Upon completion, learners will be able to apply fermentation techniques in a distilling environment.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	259340
Accreditation	SAQA Accredited · NQF Level 3 · 10 Credits
Duration	7 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply principles of fermentation to select appropriate raw materials and prepare them for fermentation.
- Monitor and control fermentation parameters such as temperature, pH, and sugar concentration to achieve desired alcohol yield.
- Identify and troubleshoot common fermentation issues, including contamination and stuck fermentation.
- Implement hygiene and safety practices to ensure product quality and compliance with regulatory standards.
- Evaluate the quality of fermented raw product through sensory and chemical analysis.
- Document fermentation processes and results for quality assurance and traceability.

WHO SHOULD ATTEND

- This course is designed for individuals working in or entering the beverage distilling industry, including distillery operators, production supervisors, and quality assurance personnel who need to understand and manage fermentation processes.

COURSE OUTLINE

Day 1: Introduction to Fermentation for Distilling

- Overview of the distilling process and fermentation's place
- Biochemistry of fermentation: sugars to ethanol
- Yeast and other microorganisms: selection and roles
- Raw materials: grains, fruits, molasses, and tubers
- Hygiene and safety in fermentation operations
- Introduction to fermentation vessels and equipment

Day 2: Raw Material Selection and Preparation

- Grain types: barley, maize, rye, wheat – characteristics
- Fruit and molasses: sugar profiles and handling
- Milling and mashing processes for starches
- Enzymatic conversion: alpha-amylase and glucoamylase
- pH adjustment and nutrient supplementation
- Water quality and its impact on fermentation
- Pre-treatment methods to reduce spoilage

Day 3: Yeast Management and Fermentation Start

- Yeast strains: distillers, wine, and specialty yeasts
- Yeast rehydration and starter cultures
- Pitching rates and temperature control
- Aeration and oxygen requirements
- Initial fermentation monitoring: specific gravity, temperature
- Common problems: stuck fermentation, off-flavours

Day 4: Fermentation Monitoring and Control

- Measuring specific gravity, Brix, and alcohol content
- Temperature control methods: cooling jackets, ambient
- pH monitoring and adjustment
- Nutrient additions: DAP, vitamins, and minerals
- Foam management and antifoam agents
- Contamination detection: lactic acid, acetic acid bacteria
- Record-keeping and batch tracking

Day 5: Completion of Fermentation and Wash Analysis

- Signs of fermentation completion: gravity, temperature
- Analytical testing: alcohol by volume, residual sugars
- Acidity and volatile acidity measurement
- Clarification: settling, centrifugation, filtration
- Wash stability and storage before distillation
- Yield calculation and efficiency analysis
- Off-flavour identification and corrective measures

Day 6: Troubleshooting and Optimisation

- Stuck fermentation: causes and remedies
- High temperature stress and yeast health

- Nutrient deficiency and supplementation strategies
- Reducing methanol, fusel oils, and acetaldehyde
- Optimising sugar-to-ethanol conversion
- Scaling up from laboratory to production
- Case studies of common fermentation faults

Day 7: Quality Assurance, Safety, and Practical Integration

- Quality assurance protocols: sampling, testing, records
- Safety: PPE, chemical handling, emergency procedures
- Linking fermentation to distillation: impact on spirit character
- Fermentation planning: recipe development for grains/fruits
- Regulatory considerations and waste management
- Course review and final assessment

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **10 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 28,200.00	R 28,200.00
1	In-House	R 36,700.00	R 36,700.00
1	On-Campus (Pretoria)	R 42,300.00	R 42,300.00

UPCOMING SESSIONS

Start	End	Method	Venue
05 Aug 2026	13 Aug 2026	On-Campus	Cape Town, South Africa
06 Aug 2026	14 Aug 2026	On-Campus	Dubai, UAE
07 Aug 2026	17 Aug 2026	On-Campus	Pretoria, South Africa
07 Aug 2026	17 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	18 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	18 Aug 2026	On-Campus	Mauritius
11 Aug 2026	19 Aug 2026	On-Campus	Cape Town, South Africa
12 Aug 2026	20 Aug 2026	On-Campus	Dubai, UAE

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 259340) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call **+27 12 004 8389** or WhatsApp **+27 65 077 6310** and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza, 1122 Burnett St, Hatfield 0028, Pretoria, Gauteng, South Africa
Tel: +27 12 004 8389 · WhatsApp: +27 65 077 6310 · apply@aaticd.co.za · www.aaticd.co.za