



Accredited Africa Training Institute for Capacity Development

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

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COURSE BROCHURE

Grape Juice Fermentation for Winemaking

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 259147 · NQF Level 3 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips learners with the practical skills and theoretical knowledge to ferment grape juice for winemaking in a controlled, hygienic, and quality-assured manner. It covers the entire fermentation process from must preparation to monitoring and troubleshooting, ensuring compliance with industry standards. Learners will be able to produce consistent, high-quality wine while maintaining safety and hygiene protocols.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	259147
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

- Demonstrate the ability to prepare and adjust grape must for fermentation according to standard operating procedures.
- Apply monitoring techniques to control fermentation parameters such as temperature, sugar levels, and pH.
- Analyze fermentation data to identify deviations and implement corrective actions.
- Evaluate the completion of fermentation using sensory and analytical methods.
- Implement hygiene and safety protocols throughout the fermentation process.
- Maintain accurate records of fermentation activities and outcomes.

WHO SHOULD ATTEND

- This course is designed for cellar workers, assistant winemakers, and aspiring winemakers who are responsible for the fermentation stage in winemaking operations.
- It is also suitable for small-scale wine producers seeking formal training in grape juice fermentation.

COURSE OUTLINE

Day 1: Introduction to Grape Juice Fermentation

- Overview of winemaking process
- Grape composition and juice extraction
- Fermentation chemistry: sugar to alcohol
- Yeast types and selection
- Fermentation vessels and equipment
- Hygiene and sanitation protocols
- Safety considerations in the cellar
- Introduction to quality control parameters

Day 2: Pre-Fermentation Practices and Must Preparation

- Must analysis: Brix, pH, titratable acidity
- Sulfur dioxide: role, addition rates, and safety
- Acid adjustments and deacidification
- Sugar additions (chaptalization) if needed
- Enzyme additions for clarification
- Cold soaking techniques
- Inoculation procedures for yeast
- Temperature management before fermentation

Day 3: Alcoholic Fermentation Management

- Fermentation kinetics: lag, exponential, stationary phases
- Temperature control methods (cooling, heating)
- Yeast nutrition: nitrogen, vitamins, oxygen
- Nutrient addition timing and rates
- Cap management for red wines (punch-down, pump-over)
- Fermentation monitoring tools: hydrometer, thermometer, data loggers
- Stuck fermentation causes and remedies
- Volatile acidity and off-flavour prevention

Day 4: Post-Fermentation Processes and Clarification

- Determining fermentation completion (dryness)
- Racking: purpose, procedure, and equipment
- Lees contact and batonnage
- Fining agents: bentonite, gelatin, egg whites, etc.
- Fining trials and dose calculations
- Cold stabilization for tartrate removal
- Filtration methods: depth, cross-flow
- Centrifugation and its role

Day 5: Maturation, Blending, and Aging

- Maturation vessel choices: steel, concrete, oak
- Oak types, toast levels, and flavour contributions
- Barrel maintenance and topping up
- Sulfur dioxide management during aging
- Blending trials and sensory evaluation

- Micro-oxygenation techniques
- Lees aging and autolysis
- Monitoring free SO₂, pH, and volatile acidity

Day 6: Quality Control and Laboratory Analysis

- Laboratory safety and equipment
- Measurement of Brix, pH, TA, and alcohol
- Free and total SO₂ analysis (Ripper method)
- Yeast and bacteria enumeration (microscopy)
- Malolactic fermentation monitoring (paper chromatography)
- Volatile acidity determination
- Sensory evaluation and fault identification
- Legal limits and labelling requirements

Day 7: Practical Integration and Course Review

- Case study: from grape to bottle
- Developing a fermentation schedule
- Emergency response: stuck fermentation, off-odours
- Record keeping and traceability
- Review of key concepts and calculations
- Mock assessment and Q&A;
- Course evaluation and feedback
- Certification requirements

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
04 Aug 2026	12 Aug 2026	On-Campus	Dubai, UAE
05 Aug 2026	13 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	13 Aug 2026	On-Campus	Lagos, Nigeria
06 Aug 2026	14 Aug 2026	On-Campus	Johannesburg, South Africa
07 Aug 2026	17 Aug 2026	On-Campus	Mauritius
10 Aug 2026	18 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	19 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	20 Aug 2026	On-Campus	Abu Dhabi, 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 259147) 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.

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