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

Automated Bread Plant Dough Making

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 259397 · NQF Level 2 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips learners with the skills to operate and manage dough make-up processes in an automated bread plant bakery. It covers the setup, monitoring, and adjustment of automated equipment to ensure consistent dough quality and production efficiency. Learners will gain the knowledge to troubleshoot common issues and maintain hygiene and safety standards.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	259397
Accreditation	SAQA Accredited · NQF Level 2 · 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 set up automated dough make-up equipment according to production specifications.
- Apply quality control procedures to monitor dough consistency, temperature, and fermentation.
- Analyze production data to identify and correct deviations in dough properties.
- Implement safety and hygiene protocols in accordance with food safety regulations.
- Evaluate equipment performance and perform routine maintenance to minimize downtime.
- Design adjustments to dough formulations or process parameters to optimize product quality.

WHO SHOULD ATTEND

- This course is intended for bakery production supervisors, line operators, and maintenance technicians working in automated bread plant environments.
- It is also suitable for aspiring bakery technologists seeking to specialize in automated dough processing.

COURSE OUTLINE

Day 1: Introduction to Automated Bread Plant Dough Making

- Overview of automated bread plant operations
- Components of dough-making systems: mixers, dividers, moulders
- Raw materials: flour, water, yeast, salt, additives
- Basic principles of dough fermentation and rheology
- Safety regulations and personal protective equipment
- Good manufacturing practices (GMP) and hygiene procedures
- Introduction to process control and automation in baking

Day 2: Raw Materials and Ingredient Handling

- Flour types and quality specifications
- Yeast management and activation
- Water quality and temperature control
- Salt and additives: function and dosage
- Automated ingredient handling systems: silos, hoppers, conveyors
- Scaling and weighing: load cells and batch control
- Ingredient traceability and stock rotation
- Quality checks: moisture content, gluten strength

Day 3: Mixing and Dough Development

- Types of mixers: spiral, planetary, horizontal
- Mixing stages: pre-mix, knead, development
- Dough temperature management and water addition
- Dough development: gluten network formation
- Automated mixing cycles and recipe management
- Monitoring dough properties: consistency, extensibility
- Common faults: under/over-mixing, dough temperature deviation
- Cleaning and maintenance of mixers

Day 4: Fermentation and Proofing

- Fermentation biology: yeast activity and gas production
- Bulk fermentation vs. final proofing
- Automated proofing chambers: temperature and humidity control
- Dough handling during fermentation: degassing and folding
- Monitoring dough maturity: pH, volume, aroma
- Impact of fermentation on bread texture and flavour
- Troubleshooting fermentation problems
- Cleaning and sanitation of proofing equipment

Day 5: Dough Dividing, Rounding, and Moulding

- Dough dividers: volumetric vs. weight-based
- Rounding: shaping dough into balls
- Moulding: shaping into loaves or rolls
- Conveyor systems and dough piece transfer
- Equipment adjustments for different dough types
- Weight control and calibration

- Common defects: sticking, tearing, irregular shape
- Preventive maintenance of forming equipment

Day 6: **Automation and Process Control**

- Programmable logic controllers (PLCs) and sensors
- HMI operation: screens, alarms, data logging
- Recipe management: storing and retrieving settings
- Batch tracking and production scheduling
- Critical control points: temperature, time, weight
- Automated cleaning-in-place (CIP) systems
- Data analysis for process optimization
- Emergency procedures and fault recovery

Day 7: **Quality Assurance, Troubleshooting, and Integration**

- Quality tests: dough pH, temperature, gluten content
- Finished product evaluation: volume, texture, crumb structure
- Troubleshooting guide: symptom to cause analysis
- Process integration: smooth transition between stages
- Waste reduction and yield optimization
- Standard operating procedures (SOPs) review
- Final assessment and feedback

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 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 20,700.00	**R 20,700.00**
1	In-House	R 27,900.00	**R 27,900.00**
1	On-Campus (Pretoria)	R 31,000.00	**R 31,000.00**

UPCOMING SESSIONS

Start	End	Method	Venue
01 Dec 2026	09 Dec 2026	On-Campus	Mauritius
02 Dec 2026	10 Dec 2026	On-Campus	Victoria Falls, Zimbabwe
02 Dec 2026	10 Dec 2026	On-Campus	Kinshasa, DRC
03 Dec 2026	11 Dec 2026	On-Campus	Pretoria, South Africa
04 Dec 2026	14 Dec 2026	On-Campus	Dar es Salaam, Tanzania
07 Dec 2026	15 Dec 2026	On-Campus	Victoria Falls, Zimbabwe
07 Dec 2026	15 Dec 2026	On-Campus	Blantyre, Malawi
08 Dec 2026	16 Dec 2026	On-Campus	Kinshasa, DRC

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

HOW TO GET A QUOTATION OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 259397) and click **Get A Quotation**. 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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