



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

Tobacco Conditioning For Processing Operations Training

Agriculture and Nature Conservation / Secondary Agriculture

Unit Standard 114144 · NQF Level 3 · 12 Credits · 9 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to condition tobacco for processing operations, ensuring optimal moisture content and quality for further manufacturing. It covers the principles of tobacco conditioning, equipment operation, and safety protocols to maintain product consistency and workplace safety.

Category	Agriculture and Nature Conservation
Subfield	Secondary Agriculture
Unit Standard	114144
Accreditation	SAQA Accredited · NQF Level 3 · 12 Credits
Duration	9 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply principles of tobacco conditioning to achieve target moisture levels.
- Demonstrate safe operation of conditioning equipment in a processing environment.
- Analyze the impact of conditioning parameters on tobacco quality.
- Implement quality control checks to ensure product consistency.
- Evaluate conditioning processes to identify and resolve operational issues.
- Comply with health, safety, and environmental regulations during conditioning operations.

WHO SHOULD ATTEND

- This course is designed for operators, technicians, and supervisors involved in tobacco processing operations within the tobacco manufacturing industry.

COURSE OUTLINE

Day 1: Introduction to Tobacco Conditioning

- Overview of tobacco processing operations
- Role of conditioning in product quality
- Raw material types: leaf grades, stems, and blends
- Fundamental concepts of moisture content and equilibrium
- Temperature effects on tobacco pliability
- Safety induction: PPE, hazard identification, emergency procedures
- Introduction to equipment: conditioning cylinders, steam chambers
- Quality standards and regulatory context

Day 2: Conditioning Theory and Process Parameters

- Moisture sorption isotherms and hysteresis
- Heat transfer mechanisms: conduction, convection, radiation
- Mass transfer and diffusion in tobacco lamina and stems
- Parameter interactions: temperature vs. moisture uptake
- Setting control limits for conditioning processes
- Measurement tools: moisture meters, thermocouples, hygrometers
- Effect of conditioning on subsequent processing (cutting, drying)
- Case studies: typical parameter ranges for flue-cured and air-cured tobacco

Day 3: Conditioning Equipment and Operation

- Conditioning cylinder design: rotating drums, steam injection, spray nozzles
- Steam chamber operation: pressure, temperature, and flow control
- Conveyor systems and feed rate regulation
- Control panels: PLC interface, setpoints, alarms
- Start-up sequence: purging, warm-up, material feed
- Shutdown procedures and cleaning protocols
- Common faults: blockages, uneven moisture, steam leaks
- Preventive maintenance checks

Day 4: Process Control and Quality Assurance

- SPC basics: control charts, capability indices
- Sampling plans for moisture testing
- In-line vs. off-line measurement techniques
- Data logging and trend analysis
- Corrective actions: adjusting steam flow, residence time, feed rate
- Quality specifications: target moisture $\pm$ tolerance
- Non-conformance handling: reconditioning, rejection
- Record keeping: logbooks, electronic databases

Day 5: Safety, Health, and Environmental Considerations

- Hazard analysis: steam burns, moving parts, electrical risks
- Lockout/tagout (LOTO) procedures
- Personal protective equipment (PPE) requirements
- Dust explosion prevention: housekeeping, bonding/grounding
- Ventilation systems and air quality monitoring

- Chemical safety: cleaning agents, nicotine exposure
- Spill response and first aid for burns
- Environmental compliance: waste disposal, emissions control

Day 6: Advanced Conditioning Techniques and Optimisation

- Methods comparison: steam conditioning, water spray, microwave
- Optimisation of residence time and temperature profiles
- Energy efficiency: heat recovery, insulation, variable speed drives
- Advanced control: cascade loops, feedforward compensation
- Process modelling and simulation basics
- Yield improvement techniques: reducing moisture variability
- Case studies: optimisation projects in tobacco plants
- Data-driven decision-making for process adjustments

Day 7: Troubleshooting and Problem-Solving

- Troubleshooting methodology: define, measure, analyse, correct, verify
- Common issues: uneven moisture, low throughput, equipment wear
- Root cause analysis tools: 5 Whys, fishbone diagram
- Fault tree analysis for steam system failures
- Interpreting alarm logs and trend data
- Collaboration with maintenance: work orders, spare parts
- Preventive action plans
- Documentation of troubleshooting outcomes

Day 8: Integration with Downstream Processes

- Impact of conditioning on cutting performance and particle size
- Influence on drying: moisture content targets for rotary dryers
- Effect on casing and flavouring application
- Product flow management: surge bins, conveyors, interlocks
- Communication protocols between shift teams
- Quality feedback loops: from cutting/drying to conditioning
- Process integration: overall line efficiency
- Case studies: troubleshooting cross-process issues

Day 9: Practical Assessment and Course Review

- Practical assessment: start-up, operation, shutdown
- Moisture testing using oven-dry method and online meters
- Parameter adjustment exercises
- Troubleshooting simulation: diagnose and correct faults
- Safety drill: LOTO, emergency stop, spill response
- Review of key concepts from Days 1–8
- Question-and-answer session
- Feedback and course evaluation

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 **12 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 33,300.00	R 33,300.00
1	In-House	R 43,300.00	R 43,300.00
1	On-Campus (Pretoria)	R 50,000.00	R 50,000.00

UPCOMING SESSIONS

Start	End	Method	Venue
07 Aug 2026	19 Aug 2026	On-Campus	Johannesburg, South Africa
10 Aug 2026	20 Aug 2026	On-Campus	Cape Town, South Africa
11 Aug 2026	21 Aug 2026	On-Campus	Dubai, UAE
12 Aug 2026	24 Aug 2026	On-Campus	Pretoria, South Africa
13 Aug 2026	25 Aug 2026	On-Campus	Abu Dhabi, UAE
14 Aug 2026	26 Aug 2026	On-Campus	Durban, South Africa
14 Aug 2026	26 Aug 2026	On-Campus	Mauritius
17 Aug 2026	27 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 114144) 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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