



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@aatikd.co.za · Website: www.aatikd.co.za

COURSE BROCHURE

Quality Engineering

Custom Courses / Quality Management

Unit Standard AATICD-0204 · NQF Level 5 · 10 Credits · 5 Days

COURSE OVERVIEW

This course equips participants with the principles and practices of quality engineering, focusing on systematic approaches to ensure products and services meet customer and regulatory requirements. Learners will develop skills to design, implement, and evaluate quality systems, driving continuous improvement in organizational processes.

Category	Custom Courses
Subfield	Quality Management
Unit Standard	AATICD-0204
Accreditation	SAQA Accredited · NQF Level 5 · 10 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply quality engineering principles to design and implement quality management systems.
- Analyze process data using statistical tools to identify variations and root causes of defects.
- Evaluate quality performance metrics and recommend improvements to enhance product reliability.
- Design quality control plans that integrate risk management and compliance requirements.
- Implement continuous improvement methodologies such as Six Sigma and Lean to optimize processes.
- Demonstrate the ability to conduct audits and assessments to ensure adherence to quality standards.

WHO SHOULD ATTEND

- Quality managers, engineers, process improvement specialists, and professionals involved in product or service quality assurance within manufacturing, service, or technology sectors.

COURSE OUTLINE

Day 1: Foundations of Quality Engineering

- Introduction to quality engineering: history and evolution.
- Core quality concepts: quality, quality control, quality assurance, quality management.
- Quality standards overview: ISO 9001, Six Sigma, Lean.
- The cost of quality: prevention, appraisal, failure costs.
- Customer focus and stakeholder requirements.
- Quality engineering roles and responsibilities.

Day 2: Quality Planning and Control Tools

- Quality planning process: identifying requirements and setting standards.
- Seven basic quality tools: check sheets, histograms, Pareto charts, cause-and-effect diagrams, scatter diagrams, control charts, flowcharts.
- Introduction to Statistical Process Control (SPC): variation, control limits.
- Process capability analysis basics.
- Control plans and inspection planning.
- Practical exercise: creating a control chart using sample data.

Day 3: Quality Assurance and Auditing

- Quality assurance principles: prevention vs. detection.
- Quality management system (QMS) documentation: policies, procedures, work instructions.
- Types of audits: internal, external, third-party.
- Audit planning: checklists, sampling, evidence gathering.
- Conducting audits: opening meeting, interviews, observation.
- Reporting findings: non-conformances, observations, opportunities for improvement.
- Corrective and preventive action (CAPA) process.
- Role-play: mock audit exercise.

Day 4: Quality Improvement Methodologies

- Continuous improvement philosophy: PDCA (Plan-Do-Check-Act).
- Root cause analysis: 5 Whys, fishbone diagram, fault tree analysis.
- Six Sigma overview: DMAIC methodology.
- Lean principles: value stream mapping, 5S, waste reduction.
- Kaizen: small incremental improvements.
- Failure Mode and Effects Analysis (FMEA) basics.
- Case study: applying DMAIC to a real-world problem.

Day 5: Integration, Capstone, and Assessment

- Quality system integration: linking planning, control, assurance, and improvement.
- Supplier quality management.
- Quality metrics and dashboards.
- Capstone project: teams develop a quality plan for a case scenario.
- Presentation of capstone projects.
- Final assessment: written test and practical demonstration.
- Course wrap-up and action planning.

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 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 24,200.00	R 24,200.00
1	In-House	R 31,400.00	R 31,400.00
1	On-Campus (Pretoria)	R 36,200.00	R 36,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
17 Aug 2026	21 Aug 2026	On-Campus	Harare, Zimbabwe
17 Aug 2026	21 Aug 2026	On-Campus	Shenzhen, China
24 Aug 2026	28 Aug 2026	On-Campus	Bangkok, Thailand
24 Aug 2026	28 Aug 2026	On-Campus	Victoria Falls, Zimbabwe
31 Aug 2026	04 Sep 2026	On-Campus	Lusaka, Zambia
31 Aug 2026	04 Sep 2026	On-Campus	London, UK

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 AATICD-0204) 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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