



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

Managing Supply and Demand Simulations

Custom Courses / Procurement and Supply Chain Management

Unit Standard AATICD-0126 · NQF Level 5 · 10 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the skills to design and manage supply and demand simulations, enabling them to forecast, analyze, and optimize inventory and production levels. Participants will gain practical experience in applying simulation models to improve decision-making in dynamic supply chain environments.

Category	Custom Courses
Subfield	Procurement and Supply Chain Management
Unit Standard	AATICD-0126
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 simulation techniques to model supply and demand scenarios in a controlled environment.
- Analyze simulation outputs to identify bottlenecks, surplus, or shortages in supply chains.
- Evaluate the impact of different variables on supply-demand equilibrium using simulation tools.
- Design simulation experiments to test alternative strategies for inventory and production planning.
- Implement corrective actions based on simulation results to optimize resource allocation.
- Demonstrate the ability to communicate simulation findings and recommendations to stakeholders.

WHO SHOULD ATTEND

- Supply chain managers, operations analysts, and logistics professionals seeking to enhance their ability to simulate and manage supply-demand imbalances in manufacturing or service industries.

COURSE OUTLINE

Day 1: Foundations of Supply and Demand

- Introduction to supply and demand theory
- Determinants of supply and demand
- Market equilibrium and price mechanisms
- Elasticity concepts
- Short-run vs long-run adjustments

Day 2: Simulation Modelling Fundamentals

- Overview of simulation modelling
- Types of simulations: discrete-event vs system dynamics
- Introduction to simulation software (e.g., AnyLogic, Simio)
- Building a basic supply-demand simulation model
- Running simulations and analysing results

Day 3: Advanced Simulation Techniques

- Randomness and probability distributions in simulations
- Multi-echelon supply chain modelling
- Sensitivity analysis and scenario planning
- Bullwhip effect and its simulation
- Validation and verification of models

Day 4: Optimisation and Decision Support

- Simulation-based optimisation
- Inventory management policies (EOQ, ROP, safety stock)
- Capacity planning and resource allocation
- Trade-off analysis: cost vs service level
- Case studies in retail and manufacturing

Day 5: Real-World Applications and Capstone

- Capstone project: design and run a simulation
- Presenting simulation results to stakeholders
- Limitations and ethical considerations
- Future trends: AI and digital twins
- Course review and 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 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

- Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard AATICD-0126) 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.
- 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.
- 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.
- 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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