



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

Routing And Scheduling Management Monitoring Techniques Training

Services / Transport, Operations and Logistics

Unit Standard 113854 · NQF Level 5 · 14 Credits · 11 Days

COURSE OVERVIEW

This course equips learners with the techniques to monitor and improve routing and scheduling management processes. It focuses on applying monitoring tools, analyzing performance data, and implementing corrective actions to enhance operational efficiency. Participants will gain the skills to ensure timely deliveries and optimal resource utilization.

Category	Services
Subfield	Transport, Operations and Logistics
Unit Standard	113854
Accreditation	SAQA Accredited · NQF Level 5 · 14 Credits
Duration	11 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply monitoring techniques to track routing and scheduling performance against set standards.
- Analyze routing and scheduling data to identify deviations and inefficiencies.
- Evaluate the effectiveness of current routing and scheduling strategies using key performance indicators.
- Implement corrective actions to improve routing and scheduling outcomes.
- Demonstrate the ability to compile monitoring reports for management decision-making.
- Design a monitoring plan for routing and scheduling processes.

WHO SHOULD ATTEND

- This course is designed for logistics managers, fleet supervisors, and operations planners responsible for routing and scheduling in transport and distribution environments.

COURSE OUTLINE

Day 1: Introduction to Routing and Scheduling Management

- Overview of routing and scheduling in supply chain management
- Core concepts: nodes, arcs, and network design
- Types of routing problems (VRP, TSP)
- Role of monitoring in performance management
- Introduction to key performance indicators (KPIs) for routing

Day 2: Route Planning Fundamentals

- Route construction heuristics (nearest neighbour, insertion)
- Time window constraints and service level agreements
- Vehicle capacity and load balancing
- Manual route planning exercises
- Introduction to route optimisation software

Day 3: Scheduling Principles and Techniques

- Scheduling theory: precedence, resource allocation
- Types of schedules: fixed, flexible, and real-time
- Tools for scheduling: Gantt charts, spreadsheets
- Managing driver hours and regulatory compliance
- Case study: scheduling a distribution fleet

Day 4: Monitoring Techniques Overview

- GPS tracking and geofencing
- Telematics systems: data collection and analysis
- Real-time monitoring dashboards
- Exception management: delays, route deviations
- Key metrics: on-time delivery, fuel consumption

Day 5: Data Analysis for Performance Monitoring

- Data sources: ERP, TMS, telematics
- Descriptive and diagnostic analytics
- Visualisation tools (charts, heat maps)
- Performance dashboards and scorecards
- Root cause analysis techniques

Day 6: Optimisation Models and Algorithms

- Introduction to linear programming and integer programming
- Vehicle routing problem (VRP) formulations
- Metaheuristics: genetic algorithms, simulated annealing
- Sensitivity analysis and scenario planning
- Software tools for optimisation

Day 7: Technology and Systems Integration

- Transportation Management Systems (TMS) features
- Integration with ERP, WMS, and telematics
- Automation: route optimisation, dispatching
- Cloud-based vs on-premise solutions

- Data security and privacy in logistics

Day 8: Advanced Monitoring: Predictive and Prescriptive Analytics

- Predictive analytics: demand forecasting, traffic prediction
- Prescriptive analytics: what-if analysis
- Machine learning for dynamic routing
- Model validation and deployment
- Case study: predictive maintenance scheduling

Day 9: Compliance, Safety, and Risk Management

- South African transport regulations (NRTA, AARTO)
- Driver fatigue management and hours of service
- Vehicle inspection and maintenance scheduling
- Risk assessment frameworks
- Incident reporting and analysis

Day 10: Continuous Improvement and Best Practices

- Lean and Six Sigma in logistics
- Benchmarking KPIs
- Root cause corrective actions
- Change management for process improvement
- Best practices in route optimisation

Day 11: Capstone Project and Course Review

- Capstone project: design a monitoring system for a case study
- Presentation and peer review
- Course summary and key takeaways
- Assessment and certification
- Q&A; session

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 **14 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 40,300.00	R 40,300.00
1	In-House	R 52,400.00	R 52,400.00
1	On-Campus (Pretoria)	R 60,500.00	R 60,500.00

UPCOMING SESSIONS

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

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 113854) 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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