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

Transport Infrastructure Design Input

Services / Transport, Operations and Logistics

Unit Standard 255799 · NQF Level 5 · 8 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the ability to provide design input to transport infrastructure projects. It focuses on interpreting design briefs, applying relevant standards, and contributing to the planning and design of transport systems. Participants will develop skills to ensure infrastructure designs meet technical, safety, and regulatory requirements.

Category	Services
Subfield	Transport, Operations and Logistics
Unit Standard	255799
Accreditation	SAQA Accredited · NQF Level 5 · 8 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS — verifiable online

LEARNING OUTCOMES

- Interpret design briefs and specifications for transport infrastructure projects.
- Apply relevant South African standards and regulations to transport infrastructure design.
- Analyze site conditions and constraints to inform design input.
- Contribute to the development of conceptual and detailed designs for transport infrastructure.
- Evaluate design proposals for compliance with safety, environmental, and sustainability criteria.
- Communicate design inputs effectively within a multidisciplinary project team.

WHO SHOULD ATTEND

- This course is designed for civil engineering technicians, transport planners, and junior engineers who are involved in the design and development of transport infrastructure.
- It is also suitable for professionals seeking to formalize their design input skills within the South African context.

COURSE OUTLINE

Day 1: **Fundamentals of Transport Infrastructure**

- Overview of transport infrastructure: roads, bridges, railways, airports
- Introduction to design inputs: traffic, terrain, environment
- Geometric design basics: alignment, cross-section, sight distance
- Regulatory framework: SA standards, SANS, COTO guidelines
- Stakeholder roles: engineers, planners, authorities

Day 2: **Traffic Data and Demand Analysis**

- Traffic data collection methods: counts, surveys, AADT
- Traffic volume analysis and peak hour factors
- Design traffic loading: ESALs, vehicle classifications
- Traffic forecasting: growth rates, modelling approaches
- Relationship between traffic and pavement design

Day 3: **Geotechnical and Environmental Inputs**

- Geotechnical investigations: soil types, CBR, compaction
- Material selection: aggregates, asphalt, concrete
- Environmental impact assessments (EIA) basics
- Drainage design: surface and subsurface systems
- Climate and terrain considerations

Day 4: **Design Standards and Structural Inputs**

- Pavement design methods: TRH4, mechanistic-empirical
- Structural design inputs: loads, materials, safety factors
- Bridge design inputs: span, clearance, loading
- Design software: input parameters for common tools
- Reading design reports: specifications, drawings

Day 5: **Integration and Practical Application**

- Preparing a design input report
- Case study: road upgrade project
- Case study: new bridge design
- Quality assurance and review of inputs
- Lifecycle considerations: construction, maintenance, rehabilitation

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 **8 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 17,700.00	**R 17,700.00**
1	In-House	R 23,900.00	**R 23,900.00**
1	On-Campus (Pretoria)	R 26,700.00	**R 26,700.00**

UPCOMING SESSIONS

Start	End	Method	Venue
07 Dec 2026	11 Dec 2026	Online	—
07 Dec 2026	11 Dec 2026	On-Campus	Bangkok, Thailand
07 Dec 2026	11 Dec 2026	On-Campus	Blantyre, Malawi
07 Dec 2026	11 Dec 2026	On-Campus	Nairobi, Kenya
07 Dec 2026	11 Dec 2026	On-Campus	Kinshasa, DRC
07 Dec 2026	11 Dec 2026	On-Campus	Johannesburg, South Africa
07 Dec 2026	11 Dec 2026	On-Campus	Abu Dhabi, UAE
07 Dec 2026	11 Dec 2026	On-Campus	Victoria Falls, Zimbabwe

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 255799) 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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