



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

Electronic Navigation Systems for Safe Navigation

Law, Military Science and Security / Sovereignty of the State

Unit Standard 261097 · NQF Level 5 · 5 Credits · 2 Days

COURSE OVERVIEW

This course equips deck officers and navigators with the practical skills and knowledge to effectively use electronic navigation systems—excluding radar—to ensure safe vessel navigation. Participants will learn to integrate GPS, AIS, ECDIS, and other electronic aids into a coherent navigational watch, enhancing situational awareness and decision-making in compliance with international maritime regulations.

Category	Law, Military Science and Security
Subfield	Sovereignty of the State
Unit Standard	261097
Accreditation	SAQA Accredited · NQF Level 5 · 5 Credits
Duration	2 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply electronic navigation systems (e.g., GPS, AIS, ECDIS) to determine vessel position and monitor safe passage.
- Analyze integrated data from multiple electronic systems to assess navigational risks and maintain situational awareness.
- Evaluate the accuracy and limitations of electronic navigation equipment to ensure reliable operation.
- Implement standard operating procedures for the use of electronic navigation systems in compliance with SOLAS and STCW requirements.
- Demonstrate the ability to cross-check electronic position fixes with traditional methods to verify navigational safety.
- Design a navigational plan using electronic systems that accounts for environmental factors and traffic conditions.

WHO SHOULD ATTEND

- This course is designed for deck officers, navigators, and maritime professionals who are responsible for the safe navigation of vessels and need to enhance their proficiency with electronic navigation systems.

COURSE OUTLINE

Day 1: Fundamentals of Electronic Navigation Systems

- Introduction to electronic navigation and its importance
- GPS: principles, segments, and signal structure
- Radar: operation, display types, and interpretation
- AIS: functionality, data exchange, and applications
- Integration of electronic navigation systems
- Error sources: atmospheric effects, multipath, and jamming
- Regulatory framework: SOLAS and IMO requirements

Day 2: Operation, Integration, and Safe Practices

- Setting up and calibrating GPS and Radar
- Using AIS for collision avoidance
- Chart plotters and electronic chart display (ECDIS)
- Data fusion: combining inputs for situational awareness
- Cross-checking techniques: radar vs. GPS vs. visual fixes
- Failure modes and backup navigation procedures
- Case studies: navigation incidents and lessons learned
- Best practices for safe navigation in various conditions

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

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 16,200.00	R 16,200.00
1	In-House	R 21,000.00	R 21,000.00
1	On-Campus (Pretoria)	R 24,300.00	R 24,300.00

UPCOMING SESSIONS

No sessions are currently scheduled. Please contact us to arrange a session at a time and location that suits your team.

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 261097) 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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