

**HEALTH, SAFETY AND SECURITY TRAINING**

Functional Safety and Regulatory Compliance for Process Operations

3 day course

Classroom, online or in-house

Course overview

A safety instrumented system is a promise that a specific hazard will be brought to a safe state a specific proportion of the time, and that promise is broken quietly by bypassed interlocks and untested trips long before anything happens. This course covers keeping it. Delegates work through hazard and risk assessment and arriving at a required integrity level from the consequence rather than from convention. The safety lifecycle follows, from specification through design, installation, validation and operation. Architecture, redundancy and how failure rate data supports a claimed integrity level are covered. Proof testing and the interval that keeps the claim true are addressed. Bypass and override management is covered directly, since that is where most degradation occurs. Management of change and functional safety assessment follow. The course closes on regulatory expectations and on demonstrating compliance to an inspector.

What you will learn

- Derive a required integrity level from consequence, not convention
- Apply the safety lifecycle from specification through operation
- Design architecture and redundancy that supports the claim
- Use failure rate data to substantiate an integrity level
- Set proof test intervals that keep the claim true
- Control bypasses, overrides and management of change
- Conduct functional safety assessment and demonstrate compliance

Who should attend

- Process and control engineers
- Functional safety coordinators
- Compliance and regulatory affairs officers
- Plant safety managers
- Instrumentation and automation technicians

Course outline

- 01 A promise broken quietly
- 02 Hazard and risk assessment
- 03 Deriving the required integrity level
- 04 The safety lifecycle
- 05 Architecture, redundancy and failure data
- 06 Proof testing and intervals
- 07 Bypasses, overrides and change
- 08 Assessment, regulation and demonstrating compliance

Upcoming dates



Dates	Venue	Format	Fee per delegate
9 to 11 November 2026	Online	Online	R6,500
13 to 15 January 2027	Windhoek, Namibia	Classroom	R14,950
8 to 10 February 2027	Kampala, Uganda	Classroom	USD 995
15 to 17 February 2027	Kigali, Rwanda	Classroom	USD 995

Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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