



HEALTH, SAFETY AND SECURITY TRAINING

Bow Tie Risk Analysis and Barrier Management

3 day course

Classroom, online or in-house

Course overview

A bow tie shows a hazard, the event that releases it, and every barrier standing between the two, which makes it the one risk method a workforce can read without training and the reason it has spread across major hazard industry. This course covers building them properly. Delegates work through hazard and top event definition, which is where most bow ties go wrong by starting with a consequence, threats and the barriers that prevent each, and consequences with the barriers that mitigate. Barrier quality is covered honestly: whether a barrier is effective, independent and auditable, since a diagram full of weak barriers looks reassuring. Escalation factors and their controls follow. The course closes on using bow ties operationally, and on the barrier owner who must maintain each one.

What you will learn

- Define a hazard and top event correctly rather than starting from consequence
- Identify threats and the preventive barriers against each
- Identify consequences and the mitigating barriers
- Assess whether a barrier is effective, independent and auditable
- Identify escalation factors and the controls that address them
- Assign barrier ownership and maintenance responsibility
- Use bow ties operationally rather than as a one off study

Who should attend

- Process safety and HSE practitioners
- Operations and maintenance supervisors on major hazard sites
- Risk managers and analysts
- Engineers participating in hazard studies
- Regulators reviewing barrier based safety arguments

Course outline

- 01 A diagram the workforce can read
- 02 Hazard and top event definition
- 03 Threats and preventive barriers
- 04 Consequences and mitigating barriers
- 05 Barrier quality: effective, independent, auditable
- 06 Escalation factors and their controls
- 07 Barrier ownership and maintenance
- 08 Operational use and keeping bow ties current

Upcoming dates

Dates	Venue	Format	Fee per delegate
21 to 23 September 2026	Online	Online	R6,500
13 to 15 January 2027	Gaborone, Botswana	Classroom	R14,950
25 to 27 January 2027	Addis Ababa, Ethiopia	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**.

AfriScience Group | +27 61 536 6531 | info@afriscience.co.za | Pretoria, Gauteng, South Africa