



PROCESS AND CHEMICAL ENGINEERING

Industrial and Cooling Water Treatment

3 day course

Classroom, online or in-house

Course overview

Cooling water systems quietly destroy heat exchangers, and the treatment programme that prevents it is usually managed by a supplier whose reports nobody interrogates. This course puts that back under the plant's control. Delegates work through water chemistry and the scaling indices used to predict deposition, corrosion in cooling systems and its control, and microbiological growth including the legionella risk that carries a legal duty. Treatment chemistry is covered practically: inhibitors, dispersants, biocides and their dosing and monitoring. Cycles of concentration, blowdown and water conservation are addressed. The course closes on auditing a supplier's programme and its results.

What you will learn

- Interpret water analysis and apply scaling indices
- Control corrosion in cooling and process water systems
- Manage microbiological growth and the legionella duty
- Select and dose inhibitors, dispersants and biocides
- Optimise cycles of concentration and blowdown
- Monitor a treatment programme against measurable results
- Audit a chemical supplier's programme and its claims

Who should attend

- Utilities and process engineers
- Maintenance and reliability engineers
- Water treatment technicians and operators
- Environmental and HSE officers
- Facilities managers with cooling systems

Course outline

- 01 Water chemistry and analysis
- 02 Scaling indices and deposition prediction
- 03 Corrosion in cooling systems
- 04 Microbiological growth and legionella duty
- 05 Inhibitors, dispersants and biocides
- 06 Dosing, control and monitoring
- 07 Cycles of concentration and blowdown
- 08 Auditing a supplier programme

Upcoming dates

Dates	Venue	Format	Fee per delegate
14 to 16 October 2026	Harare, Zimbabwe	Classroom	USD 995
23 to 25 November 2026	Kigali, Rwanda	Classroom	USD 995
23 to 25 December 2026	Maseru, Lesotho	Classroom	R14,950
24 to 26 March 2027	Online	Online	R6,500



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