



PROCESS AND CHEMICAL ENGINEERING

Desalting, Dehydration and Emulsion Operations

5 day course

Classroom, online or in-house

Course overview

Water and salt arriving with crude cause corrosion, fouling and catalyst damage far downstream of where they enter, which is why the desalter is one of the highest leverage units on a plant. This course covers operating it. Delegates work through emulsion formation and stability, the mechanisms available to break one including chemical, thermal and electrostatic, and desalter design and operation. Demulsifier selection and dosage optimisation are covered practically. Troubleshooting takes substantial time: carry over, carry under, grid shorting and the interface problems that account for most poor performance. The course closes on the downstream consequences of a desalter running badly.

What you will learn

- Explain emulsion formation and what stabilises one
- Apply chemical, thermal and electrostatic separation mechanisms
- Operate a desalter within its performance envelope
- Select and optimise demulsifier chemistry and dosage
- Diagnose carry over, carry under and interface problems
- Recognise grid shorting and its causes
- Trace downstream corrosion and fouling back to desalter performance

Who should attend

- Refinery and production process engineers
- Panel operators and field operators
- Chemical treatment specialists
- Corrosion and integrity engineers
- Technical services staff

Course outline

- 01 Why water and salt matter far downstream
- 02 Emulsion formation and stability
- 03 Chemical, thermal and electrostatic separation
- 04 Desalter design and operation
- 05 Demulsifier selection and dosage
- 06 Carry over, carry under and interface control
- 07 Grid shorting and electrical problems
- 08 Downstream consequences of poor performance

Upcoming dates

Dates	Venue	Format	Fee per delegate
12 to 16 October 2026	Accra, Ghana	Classroom	USD 1,325
7 to 11 December 2026	Online	Online	R8,500
22 to 26 February 2027	Cape Town, South Africa	Classroom	R19,950

Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia,



Lesotho and Eswatini, and **USD 1,325** 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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