



PROCESS AND CHEMICAL ENGINEERING

Amine Gas Sweetening and Sulphur Recovery

5 day course

Classroom, online or in-house

Course overview

Removing hydrogen sulphide and carbon dioxide from a gas stream, and converting the recovered sulphur compounds into a saleable solid, is a tightly coupled pair of processes where an upset in one appears immediately in the other. This course covers both. Delegates work through amine chemistry and solvent selection, absorber and regenerator operation, and the solvent management problems that dominate day to day running: foaming, degradation, heat stable salts and corrosion. Sulphur recovery follows, covering the thermal and catalytic stages, tail gas treatment and the emissions limits that govern the whole unit. The course closes on troubleshooting a unit that is off specification.

What you will learn

- Explain amine chemistry and select a solvent for a gas composition
- Operate absorber and regenerator columns within their limits
- Diagnose and control foaming, degradation and heat stable salts
- Manage the corrosion that amine service produces
- Describe the thermal and catalytic stages of sulphur recovery
- Operate tail gas treatment against emissions limits
- Troubleshoot a unit producing off specification gas or sulphur

Who should attend

- Gas plant and refinery process engineers
- Panel operators and shift supervisors
- Process safety and environmental staff
- Maintenance engineers on gas treating units
- Graduate engineers entering gas processing

Course outline

- 01 Why gas is sweetened, and the specifications that drive it
- 02 Amine chemistry and solvent selection
- 03 Absorber operation and limits
- 04 Regeneration, reboiler duty and solvent circulation
- 05 Foaming, degradation and heat stable salts
- 06 Corrosion in amine service
- 07 Sulphur recovery: thermal and catalytic stages
- 08 Tail gas treatment and emissions limits
- 09 Troubleshooting off specification operation

Upcoming dates

Dates	Venue	Format	Fee per delegate
12 to 16 October 2026	Online	Online	R8,500
23 to 27 November 2026	Kampala, Uganda	Classroom	USD 1,325
21 to 25 December 2026	Gaborone, Botswana	Classroom	R19,950
4 to 8 January 2027	Maputo, Mozambique	Classroom	USD 1,325



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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