



PROCESS AND CHEMICAL ENGINEERING

Refinery Operations and Process Troubleshooting

5 day course

Classroom, online or in-house

Course overview

A refinery is a set of tightly coupled units where an upset in one propagates through the others faster than most operators can trace it. This course builds the understanding needed to work across that whole. Delegates cover crude characterisation and the distillation train, conversion units including catalytic cracking, reforming and hydroprocessing, and the treating and blending that produce a finished product. Utilities and their role as the common cause of multi unit upsets receive their own treatment. The course then applies a structured troubleshooting method across unit boundaries, working real scenarios where the symptom appears in one unit and the cause sits in another.

What you will learn

- Characterise a crude and explain how it drives the distillation yield
- Describe the conversion units and what each is for
- Explain treating, blending and finished product specifications
- Recognise utilities as a common cause of multi unit upsets
- Trace an upset across unit boundaries to its origin
- Apply a structured troubleshooting method to a refinery scenario
- Assess the economic consequence of an operating decision

Who should attend

- Refinery process and operations engineers
- Panel operators and shift supervisors
- Technical services and planning staff
- Maintenance engineers working across units
- Graduate engineers entering refining

Course outline

- 01 Crude characterisation and the distillation train
- 02 Catalytic cracking and conversion
- 03 Reforming and hydroprocessing
- 04 Treating, blending and product specifications
- 05 Utilities as the common cause of coupled upsets
- 06 Structured troubleshooting across unit boundaries
- 07 Worked scenarios where symptom and cause are in different units
- 08 Economics of an operating decision

Upcoming dates

Dates	Venue	Format	Fee per delegate
21 to 25 September 2026	Addis Ababa, Ethiopia	Classroom	USD 1,325
23 to 27 November 2026	Lagos, Nigeria	Classroom	USD 1,325
4 to 8 January 2027	Online	Online	R8,500
8 to 12 February 2027	Durban, 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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