



PROCESS AND CHEMICAL ENGINEERING

Fluid Catalytic Cracking Operations

5 day course

Classroom, online or in-house

Course overview

The catalytic cracker converts heavy feed into the products that carry a refinery's margin, and it does so in a coupled reactor and regenerator system where a change on one side immediately moves the other. This course covers operating it. Delegates work through feed characterisation and its effect on yields, reactor and riser behaviour, and regenerator combustion and heat balance as the constraint that usually limits the unit. Catalyst properties, circulation and management are covered in detail. Product recovery and the main fractionator follow. The course closes on troubleshooting, on the emissions and reliability constraints that bound operation, and on optimisation against product value.

What you will learn

- Characterise feed and predict its effect on yields
- Describe reactor and riser behaviour and its controlling variables
- Operate the regenerator within its combustion and heat balance limits
- Manage catalyst properties, circulation and additions
- Operate product recovery and the main fractionator
- Troubleshoot the coupled reactor and regenerator system
- Optimise the unit against product value and its constraints

Who should attend

- Refinery process and operations engineers
- Panel operators and shift supervisors on conversion units
- Catalyst and technical services staff
- Planning and optimisation engineers
- Graduate engineers entering refining

Course outline

- 01 The coupled reactor and regenerator system
- 02 Feed characterisation and yields
- 03 Reactor and riser behaviour
- 04 Regenerator combustion and heat balance
- 05 Catalyst properties and circulation
- 06 Product recovery and main fractionator
- 07 Troubleshooting across the loop
- 08 Emissions constraints and optimisation

Upcoming dates

Dates	Venue	Format	Fee per delegate
26 to 30 October 2026	Accra, Ghana	Classroom	USD 1,325
28 December 2026 to 1 January 2027	Pretoria, South Africa	Classroom	R19,950
8 to 12 February 2027	Online	Online	R8,500
22 to 26 March 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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