



OIL, GAS AND PETROCHEMICALS TRAINING

Olefins and Aromatics Petrochemical Technology

5 day course

Classroom, online or in-house

Course overview

Ethylene, propylene and the BTX aromatics are the building blocks of most plastics, fibres and solvents, and the complexes that make them are among the most energy intensive plants in the chemical industry. The course begins with steam cracking: feedstock choice from ethane to naphtha, furnace severity and coil outlet temperature, quench, cracked gas compression, caustic washing and the cold box. The fractionation train follows, from demethaniser to the C2 and C3 splitters, with acetylene hydrogenation and ethylene and propylene refrigeration. On purpose propylene from propane dehydrogenation and metathesis is reviewed. The aromatics half covers pyrolysis gasoline hydrotreating, solvent extraction, xylene isomerisation and paraxylene separation. Participants finish able to explain how these complexes run, compare feedstock economics and spot the constraints that cap capacity.

What you will learn

- Explain steam cracking chemistry and the effect of feedstock on yields
- Relate furnace severity and residence time to product slate and coking
- Describe cracked gas compression, treating and drying
- Explain the separation sequence from demethaniser to product splitters
- Compare on purpose propylene routes including dehydrogenation and metathesis
- Describe pyrolysis gasoline hydrotreating and aromatics extraction
- Outline xylene isomerisation and paraxylene recovery
- Evaluate feedstock economics for an olefins complex

Who should attend

- Process engineers in petrochemical plants
- Operators and supervisors moving into olefins or aromatics units
- Planners and economists in petrochemical companies
- Engineers evaluating new petrochemical investments
- Technical sales staff serving petrochemical producers

Course outline

- 01 Petrochemical value chains
- 02 Steam cracking furnaces and feedstocks
- 03 Quench and cracked gas compression
- 04 Cold section and product fractionation
- 05 On purpose propylene
- 06 Pyrolysis gasoline and aromatics extraction
- 07 Xylenes and paraxylene recovery
- 08 Feedstock and margin economics

Upcoming dates



Dates	Venue	Format	Fee per delegate
26 to 30 October 2026	Durban, South Africa	Classroom	R19,950
16 to 20 November 2026	Online	Online	R8,500
28 December 2026 to 1 January 2027	Pretoria, South Africa	Classroom	R19,950
25 to 29 January 2027	Johannesburg, 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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