

**DRILLING, WELLS AND RESERVOIR ENGINEERING**

Matrix Acidising and Hydraulic Fracturing

5 day course

Classroom, online or in-house

Course overview

Stimulation is the step where a marginal well becomes commercial, or where an expensive treatment is pumped into a zone that was never going to respond. Delegates first learn to tell damage from low permeability, then design matrix treatments: hydrochloric acid for carbonates, mud acid for sandstones, wormhole formation, diversion and precipitation risks. Hydraulic fracturing follows, with in situ stress and fracture orientation taken as inputs, fracture geometry models, fluids and proppants, conductivity and pumping schedules. Minifrac analysis, pressure matching and treatment execution with surface equipment and quality control are worked through. Multistage horizontal completions and flowback close the programme. Delegates leave able to select and design a stimulation treatment and judge from the data whether it worked.

What you will learn

- Distinguish formation damage from low permeability as the cause of poor inflow
- Design carbonate acid treatments to promote wormhole growth
- Design sandstone acid treatments that avoid harmful precipitation
- Select diversion methods for long or heterogeneous intervals
- Apply fracture geometry models to size a treatment
- Select fracturing fluids and proppants for reservoir conditions
- Interpret minifrac data to refine closure pressure and leakoff
- Plan multistage fracturing and flowback in horizontal wells

Who should attend

- Completion and stimulation engineers
- Production engineers selecting stimulation candidates
- Reservoir engineers estimating stimulation response
- Pumping service engineers and supervisors
- Petroleum engineers in tight gas and unconventional projects

Course outline

- 01 Candidate selection and the stimulation decision
- 02 Carbonate acidising and wormholes
- 03 Sandstone acidising chemistry
- 04 Diversion and acid placement
- 05 Rock mechanics inputs to fracture design
- 06 Fracture geometry models
- 07 Fluids, proppants and conductivity
- 08 Minifrac analysis and treatment execution
- 09 Multistage completions and flowback

Upcoming dates



Dates	Venue	Format	Fee per delegate
12 to 16 October 2026	Cape Town, South Africa	Classroom	R19,950
23 to 27 November 2026	Windhoek, Namibia	Classroom	R19,950
25 to 29 January 2027	Dar es Salaam, Tanzania	Classroom	USD 1,325
1 to 5 February 2027	Online	Online	R8,500

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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