

**DRILLING, WELLS AND RESERVOIR ENGINEERING**

Production Data Analysis and Decline Curve Forecasting

5 day course

Classroom, online or in-house

Course overview

Many forecasts are still made by drawing a straight line through the last few months of noisy rate data, which can overstate remaining volumes when operating changes are mistaken for reservoir behaviour. Rate and flowing pressure tell a far more reliable story. Delegates begin with cleaning production histories: allocation errors, shut ins and changes in choke or lift. Arps exponential, hyperbolic and harmonic declines are fitted and their assumptions tested, followed by modified hyperbolic and stretched exponential models for low permeability wells. Rate transient analysis using Fetkovich and Blasingame type curves and flowing material balance extracts permeability, drainage area and contacted volume. Type well construction and probabilistic forecasting close the work. Delegates leave able to forecast wells and fields from production data and state their uncertainty.

What you will learn

- Condition production and pressure histories for analysis
- Fit Arps exponential, hyperbolic and harmonic decline models
- Apply modified hyperbolic and stretched exponential models to tight wells
- Interpret Fetkovich and Blasingame type curves
- Use flowing material balance to estimate contacted volumes
- Construct type wells for undrilled locations
- Produce probabilistic production forecasts

Who should attend

- Reservoir and production engineers
- Reserves analysts
- Surveillance engineers
- Planning and budgeting staff
- Engineers evaluating acquisitions

Course outline

- 01** Production data quality and conditioning
- 02** Diagnostic plots
- 03** Arps decline analysis
- 04** Decline models for low permeability wells
- 05** Rate transient analysis
- 06** Type curve matching
- 07** Flowing material balance
- 08** Type wells and analogues
- 09** Probabilistic forecasting

Upcoming dates



Dates	Venue	Format	Fee per delegate
9 to 13 November 2026	Cape Town, South Africa	Classroom	R19,950
30 November to 4 December 2026	Durban, South Africa	Classroom	R19,950
21 to 25 December 2026	Dar es Salaam, Tanzania	Classroom	USD 1,325
22 to 26 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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