



PETROLEUM GEOSCIENCE AND PETROPHYSICS

Seismic Data Acquisition and Processing

5 day course

Classroom, online or in-house

Course overview

A poorly designed survey cannot be rescued in the processing centre, and a careless processing flow can erase the very signal a survey was paid to record. This programme is for the people who specify, supervise and quality control both stages. Delegates start with survey design: fold, offset and azimuth distribution, bin size, and source and receiver choices for vibroseis, dynamite, airgun and ocean bottom node operations, along with environmental and community constraints. The processing half follows a typical flow from geometry assignment and noise attenuation through deconvolution, statics, velocity analysis, multiple suppression and prestack time and depth migration. Each step is judged by what a QC geophysicist should check on screen. Delegates leave able to write a technical specification for acquisition, audit a processing sequence and spot where a contractor has cut corners.

What you will learn

- Design survey geometry for target depth, resolution and azimuth requirements
- Select sources and receivers suited to land, transition zone and marine conditions
- Specify field quality control measures and acceptance criteria
- Apply noise attenuation, deconvolution and static corrections in a processing flow
- Perform velocity analysis and evaluate stacking and migration velocities
- Compare prestack time and prestack depth migration outcomes
- Audit contractor processing deliverables against a technical specification

Who should attend

- Acquisition and processing geophysicists
- Seismic party supervisors and client representatives
- Geophysical QC specialists
- Data management staff at national oil companies
- Interpreters wanting to understand processing artefacts

Course outline

- 01 Survey design parameters and illumination
- 02 Sources, receivers and recording systems
- 03 Field operations, HSE and community constraints
- 04 Field QC and data delivery
- 05 Geometry, noise attenuation and deconvolution
- 06 Statics corrections and velocity analysis
- 07 Multiple suppression
- 08 Prestack time and depth migration
- 09 Processing QC and contractor management

Upcoming dates

Dates	Venue	Format	Fee per delegate
22 to 26 February 2027	Lagos, Nigeria	Classroom	USD 1,325
1 to 5 March 2027	Online	Online	R8,500
15 to 19 March 2027	Maseru, Lesotho	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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