



PETROLEUM GEOSCIENCE AND PETROPHYSICS

Seismic Fundamentals for Non Geophysicists

5 day course

Classroom, online or in-house

Course overview

Seismic sections appear in every board pack and farm out data room, yet many of the people approving the spend cannot say what a reflection actually represents or why a bright spot may mean nothing at all. This programme closes that gap without the mathematics. Delegates begin with how sound travels through rock and bounces off layer boundaries, then see how a survey is shot on land and offshore, and why raw records need heavy processing before anyone can use them. Time versus depth, vertical resolution, multiples and other artefacts are demonstrated on real displays. Later sessions show how interpreters pick horizons and faults, how amplitude anomalies are used and misused, and what time lapse monitoring adds. Delegates leave able to read a seismic line with confidence and to challenge claims made from it.

What you will learn

- Explain in plain language how seismic reflections are generated
- Describe how land and marine seismic surveys are acquired
- Outline why processing is needed and what it changes
- Distinguish two way time from depth on a seismic display
- Recognise common artefacts such as multiples and velocity pull up
- Follow how interpreters map horizons and faults
- Question amplitude based claims of hydrocarbons in a prospect

Who should attend

- Petroleum and drilling engineers
- Asset and project managers
- Commercial, finance and legal staff reviewing data rooms
- Regulators overseeing seismic permits and data
- Geologists with little geophysical background

Course outline

- 01 Sound waves in rock and acoustic impedance
- 02 Land and marine survey basics
- 03 What processing does to raw records
- 04 Time, depth and velocity
- 05 Resolution, tuning and thin beds
- 06 Artefacts, multiples and pitfalls
- 07 Picking horizons and faults
- 08 Bright spots and their limits
- 09 Time lapse seismic and reservoir monitoring

Upcoming dates

Dates	Venue	Format	Fee per delegate
14 to 18 December 2026	Harare, Zimbabwe	Classroom	USD 1,325
8 to 12 February 2027	Online	Online	R8,500
15 to 19 March 2027	Gaborone, Botswana	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@afiscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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