



OIL, GAS AND PETROCHEMICALS TRAINING

Hydrocarbon Flow Measurement and Custody Transfer

5 day course

Classroom, online or in-house

Course overview

A small bias in a fiscal meter moves money between buyer, seller and government every hour it runs, and it usually stays hidden until a monthly reconciliation refuses to close. The course begins with the physics of flow and the fluid properties that matter: density, viscosity, compressibility and water content. Turbine, ultrasonic, Coriolis and orifice meters are then compared for liquid and gas duty, alongside sampling and quality analysis systems. Proving, calibration and meter factor control come next, with the flow computer arithmetic that converts raw signals into standard volumes and energy, drawing on API MPMS, ISO 5167 and AGA practice. Allocation between partners, uncertainty budgets, mismeasurement investigation and the commercial side of custody transfer close the week. Metering staff leave able to audit a station, judge its uncertainty and defend its figures in a dispute.

What you will learn

- Explain the fluid properties that drive measurement accuracy
- Select a meter type for a given liquid or gas custody transfer duty
- Apply proving and calibration methods to control meter factors
- Calculate standard volume and energy from flow computer inputs
- Specify sampling and analysis systems for representative quality data
- Estimate the uncertainty of a fiscal metering system
- Investigate a mismeasurement event and quantify the correction
- Interpret custody transfer clauses and allocation agreements

Who should attend

- Metering engineers and instrument technicians
- Production accountants and allocation specialists
- Pipeline and terminal operations staff
- Government auditors of petroleum measurement
- Commercial staff handling hydrocarbon sales agreements

Course outline

- 01 Fluid properties and measurement principles
- 02 Liquid meters: turbine, Coriolis and ultrasonic
- 03 Gas metering: orifice and ultrasonic
- 04 Provers, calibration and meter factors
- 05 Sampling, analysis and water in oil
- 06 Flow computers and standard conditions
- 07 Uncertainty analysis
- 08 Allocation and mismeasurement
- 09 Custody transfer agreements and audits

Upcoming dates



Dates	Venue	Format	Fee per delegate
9 to 13 November 2026	Gaborone, Botswana	Classroom	R19,950
7 to 11 December 2026	Maputo, Mozambique	Classroom	USD 1,325
14 to 18 December 2026	Online	Online	R8,500
28 December 2026 to 1 January 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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