



LABORATORY EXCELLENCE, SAFETY AND ACCREDITATION

Analytical Chemistry Methods and Instrumentation

5 day course

Classroom, online or in-house

Course overview

A broad grounding in the analytical techniques a working laboratory uses and, more importantly, in choosing between them. Delegates work through classical wet chemistry and where it remains the right answer, chromatographic separation for both gas and liquid phase, spectroscopic determination, and electrochemical methods. Each technique is presented against the question it answers, its detection range and its interferences, so delegates can match a technique to an analyte and a matrix rather than to whatever instrument the laboratory owns. Sample preparation, quality control and result reporting run through the whole course.

What you will learn

- Match an analytical technique to an analyte and a matrix
- Apply classical wet chemistry where it remains appropriate
- Describe gas and liquid chromatographic separation
- Select spectroscopic and electrochemical determination methods
- Compare techniques on detection range, precision and interference
- Prepare samples appropriately for the chosen technique
- Apply quality control and report results defensibly

Who should attend

- Laboratory technicians and analysts
- Graduate chemists entering laboratory work
- Quality control staff
- Laboratory supervisors and technical managers
- Staff moving between laboratory disciplines

Course outline

- 01 Choosing a technique for an analyte and a matrix
- 02 Classical wet chemistry and titrimetry
- 03 Gas chromatography
- 04 Liquid chromatography
- 05 Spectroscopic determination
- 06 Electrochemical methods
- 07 Sample preparation across techniques
- 08 Quality control and reporting

Upcoming dates

Dates	Venue	Format	Fee per delegate
19 to 23 October 2026	Kampala, Uganda	Classroom	USD 1,325
2 to 6 November 2026	Johannesburg, South Africa	Classroom	R19,950
21 to 25 December 2026	Windhoek, Namibia	Classroom	R19,950
4 to 8 January 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**.

AfriScience Group | +27 61 536 6531 | info@afriscience.co.za | Pretoria, Gauteng, South Africa