



LABORATORY EXCELLENCE, SAFETY AND ACCREDITATION

Laboratory Equipment Calibration and Preventive Maintenance

3 day course

Classroom, online or in-house

Course overview

A laboratory result is only as defensible as the instrument that produced it, and an auditor asking for calibration evidence will find either a traceable chain or a certificate nobody understands. This course builds the chain. Delegates work through metrological traceability and what makes a reference standard acceptable, calibration intervals and setting them from drift history rather than habit, and measurement uncertainty in terms a laboratory can actually calculate. Balances, pipettes, thermometers, pH meters and volumetric glassware are covered individually, since each fails in its own way. In house versus external calibration is addressed, including what a laboratory may legitimately do itself. Preventive maintenance schedules and the tasks that prevent failures rather than merely record them follow. Out of specification results and the recall question they raise are covered. The course closes on records and on preparing for an accreditation assessment.

What you will learn

- Establish metrological traceability to acceptable reference standards
- Set calibration intervals from drift history rather than habit
- Calculate and state measurement uncertainty
- Calibrate balances, pipettes, thermometers, pH meters and glassware
- Decide what may be calibrated in house and what must go out
- Build preventive maintenance schedules that prevent failures
- Handle out of specification results and satisfy an accreditation assessor

Who should attend

- Laboratory equipment and metrology officers
- Quality assurance and technical managers
- Biomedical and laboratory equipment technicians
- Laboratory managers responsible for asset management

Course outline

- 01 The chain behind a defensible result
- 02 Traceability and reference standards
- 03 Calibration intervals from drift history
- 04 Measurement uncertainty in practice
- 05 Balances, pipettes and thermometers
- 06 pH meters and volumetric glassware
- 07 In house versus external calibration
- 08 Preventive maintenance, out of specification results and records

Upcoming dates

Dates	Venue	Format	Fee per delegate
21 to 23 September 2026	Online	Online	R6,500
7 to 9 October 2026	Kigali, Rwanda	Classroom	USD 995
25 to 27 January 2027	Lusaka, Zambia	Classroom	USD 995



Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** 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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