



LABORATORY EXCELLENCE, SAFETY AND ACCREDITATION

Basic Statistics for Laboratory Professionals

2 day course

Classroom, online or in-house

Course overview

Laboratory work produces numbers, and the conclusions drawn from them are only as sound as the statistics applied. This course builds that foundation for people without a statistical background. Delegates work through distributions and what normality means in practice, measures of centre and spread, standard error and confidence intervals, and the outlier tests that are widely used and frequently misapplied. Significance testing is introduced through what a p value does and does not say. The material is taught entirely on laboratory data, including calibration, replicate analysis and control results, so delegates leave able to interpret their own output rather than a textbook example.

What you will learn

- Describe distributions and assess normality in practice
- Calculate and interpret measures of centre and spread
- Distinguish standard deviation from standard error
- Construct and interpret confidence intervals
- Apply outlier tests correctly and know their limits
- Interpret a significance test and what a p value does not say
- Apply these to calibration, replicate and control data

Who should attend

- Laboratory analysts and technicians
- Quality officers and technical staff
- Graduate scientists without a statistics background
- Supervisors interpreting laboratory data
- Anyone reviewing laboratory results before release

Course outline

- 01 Data types and distributions
- 02 Normality and what it means in practice
- 03 Centre, spread and the summary that misleads
- 04 Standard deviation against standard error
- 05 Confidence intervals
- 06 Outlier tests and their misuse
- 07 Significance testing and the p value
- 08 Applying it to calibration, replicate and control data

Upcoming dates

Dates	Venue	Format	Fee per delegate
28 to 29 October 2026	Dar es Salaam, Tanzania	Classroom	USD 795
11 to 12 November 2026	Maseru, Lesotho	Classroom	R11,950
18 to 19 November 2026	Windhoek, Namibia	Classroom	R11,950
6 to 7 January 2027	Pretoria, South Africa	Classroom	R11,950



Fees and how to register

This 2 day course is **R6,500** per delegate online, **R11,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 795** 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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