



## LABORATORY EXCELLENCE, SAFETY AND ACCREDITATION

# Intermediate Statistics for Laboratory Professionals

3 day course

Classroom, online or in-house

## Course overview

For laboratory staff who have the basics and need the methods that answer real analytical questions. Delegates work through regression and calibration curve construction including weighting and the treatment of a nonlinear response, analysis of variance for comparing methods, analysts and instruments, and the interpretation of repeatability and reproducibility studies. Method comparison is covered properly, including why correlation is the wrong test for agreement. The course also addresses non parametric alternatives for data that will not behave, and closes on presenting a statistical conclusion to a technical audience that will act on it without reading the underlying analysis.

## What you will learn

- Construct calibration curves including weighted and nonlinear cases
- Apply analysis of variance to compare methods, analysts and instruments
- Interpret repeatability and reproducibility studies
- Compare two methods correctly, and explain why correlation is the wrong test
- Apply non parametric alternatives where assumptions fail
- Assess trend and drift in control data
- Present a statistical conclusion to a technical audience

## Who should attend

- Experienced laboratory analysts
- Method validation and development staff
- Quality and technical managers
- Metrologists
- Internal auditors reviewing statistical claims

## Course outline

- 01 Regression and calibration curve construction
- 02 Weighting and nonlinear response
- 03 Analysis of variance for method, analyst and instrument comparison
- 04 Repeatability and reproducibility studies
- 05 Method comparison and the correlation trap
- 06 Non parametric alternatives
- 07 Trend and drift in control data
- 08 Presenting a conclusion that will be acted on

## Upcoming dates

| Dates                 | Venue                | Format    | Fee per delegate |
|-----------------------|----------------------|-----------|------------------|
| 6 to 8 January 2027   | Durban, South Africa | Classroom | R14,950          |
| 27 to 29 January 2027 | Online               | Online    | R6,500           |
| 1 to 3 March 2027     | Maseru, Lesotho      | Classroom | R14,950          |
| 8 to 10 March 2027    | Kampala, Uganda      | 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](http://www.afrisciencegroup.com), email [info@afriscience.co.za](mailto:info@afriscience.co.za), or WhatsApp us on **+27 63 479 1136**.

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