



MiChem Dynamics
LEADING CHANGE

STATISTICAL PROCESS CONTROL AND ANALYSIS

The Laboratory Statistical Process Control and Analysis Training Course is designed to equip participants with essential skills and knowledge to implement effective statistical methods in laboratory settings. The course covers a comprehensive range of topics, including data collection, analysis, interpretation, and decision-making to ensure the reliability and accuracy of laboratory processes.

By the end of the course, participants will have a solid foundation in statistical process control and analysis, enabling them to enhance the quality, efficiency, and reliability of laboratory processes. The hands-on approach and practical exercises ensure that participants can immediately apply their knowledge in their respective laboratory environments.



THE COURSE WILL RUN OVER A PERIOD OF 2 DAYS

LEARNING OUTCOMES:

- Introduction to statistical concepts commonly used in science.
- Understanding of the necessary tools to deal raw data generated in the laboratory.
- Learn how to visualize data, characterize data, compare data and perform statistic tools.

WHO SHOULD ATTEND THIS COURSE:

- Laboratory managers / supervisors
- Analysts / technicians
- Technical signatories
- Personnel responsible for setting up QC procedures, charts and records.
- Personnel responsible for Method validation and verification

MINIMUM ENTRY REQUIREMENTS:

- Fluency in English writing and reading skills

TUITION:

- Training material included (English)
- Certificate of attendance or competence (based on outcome of assessment) will be issued on successful completion of training.

COURSE OVERVIEW:

DAY 1

- Introduction to statistics
 - Collection
 - Analysis

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COURSE OVERVIEW:

- Interpretation
- Presentation
- Organisation of data
- Excel and setting up formulas
- Accuracy
- Precision
- Mean
- Variance

DAY 2

- Calculate Percent Recovery
- Standard deviation
- Relative standard deviation
- Errors
- Uncertainty
- Evaluation of Means for small samples - The t-test
- Comparison of standard deviations - The F-test
- Z-Scores in Statistics Explained
- Dixon's Q Test: Definition, Step by Step Examples + Q Critical Values Tables
- Test (assessment)

