

# MICROBIOLOGY METHOD VALIDATION AND UNCERTAINTY OF MEASUREMENT: PRACTICAL COURSE FOR TESTING LABORATORIES



## Aim of Course

- To provide a practical approach where training will be given on how to perform validation of microbiological methods and to evaluate to ensure methods are fit for purpose. The course will include 70% practical (hands on) aspects and 30% theoretical aspects.
- To ensure method validation and measurement uncertainty requirements (ISO 17025 and SANAS TR 28) are understood.

Each attendee must bring his/her own laboratory coat and a scientific calculator.

## Course Overview

- Understanding the requirements for method validation and uncertainty of measurement by accreditation bodies
- Standard methods vs. newly developed or changed methods
- Developing method validation procedures/protocols and experimental design
- Setting performance criteria for different parameters based on test methods (qualitative and quantitative)
- Using Proficiency Testing (Inter-laboratory Comparison) data for method validation
- Quality control and the use of reference cultures during method validation
- Different performance parameters and deciding which need to be characterized / evaluated
- Matrix effect and how it affects method validation
- Requirements for quantitative and qualitative methods
- Method validation acceptance criteria
- Practical sessions where all parameters will be performed by participants in the laboratory
- Statistical evaluation and analysis of data generated during practical sessions
- Recording of results and generating validation reports
- On-going verification of test methods to ensure / demonstrate fitness for purpose
- Validation of test kits and rapid test methods
- Uncertainty of measurement in microbiology and different approaches
- Using method validation data in the evaluation of uncertainty of measurement and understanding the links with uncertainty of measurement
- Interpretation, application and reporting of uncertainty of measurement
- References and information to assist with the validation process

## Who should attend?

- Technicians and analysts working in water and food microbiology laboratories
- Quality Control/Assurance personnel

## Course Duration

5 Days

## Evaluation

In order to successfully complete this course, and obtain a certificate, attendees are required to write and pass an examination, which will be written approximately two weeks after the course.

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