

## **"Internal Quality Control in Chemical Testing Laboratories"**

### **Ensuring validity of test results.**

Course Duration: 2 days

### **Introduction**

Internal quality control in laboratories is a key element in ensuring the validity of test results. A testing laboratory is required to implement an appropriate level of quality control protocol to ensure the measurement system is under statistical control.

This course is designed to provide a comprehensive understanding of internal quality control and its practical application within chemical testing laboratories.

### **Who Should Attend?**

This course is designed for laboratory staff, including laboratory managers, chemists, and quality control officers who need to:

- Implement and maintain an effective quality management system.
- Gain a thorough understanding of quality control requirements and application.

### **Course Objectives**

Provide participants with the knowledge, understanding and skill to:

- Implement effective internal quality control procedures in chemical testing laboratories.
- Understand the key components of analytical quality assurance.

- Understand ISO 17025 requirements related to quality control.
- Monitor method performance.
- Apply the principles of quality control charting.

### **Course Content**

- Introduction to ISO 17025 and laboratory accreditation and key components of analytical quality assurance.
- Requirements for analytical quality.
- Quality control charting.
- Setting the control limits.
- Setting up a quality control program.
- Daily interpretation of quality control.
- Long-term evaluation of quality control data.
- Other uses of quality control data and control charts.
- Quality control and proficiency testing.
- ISO 17025 Requirements related to quality control.
- Documentation of quality control

### **Course outcome**

Upon completion of this course, participants will be able to:

- Enhance participants' abilities to establish and maintain effective internal quality control programs.
- Improve the reliability and accuracy of test results through robust quality control practices.
- Gain the skills to confidently interpret and respond to quality control data.
- Ensure compliance with ISO 17025 requirements related to internal quality control.
- Optimize laboratory operations by minimizing errors and improving overall quality assurance.