Calibration Traceability and Standardization Concepts Workshop

Workshop Index Duration: 1 DAY

Use the index to navigate the workshop sections and open quick reference modals for scope, audience, outcomes, delivery, policies, and FAQs.

Quick Summary Overview & Outcomes Agenda & Hands-on Deliverables & FAQs

Quick View Who Should Attend Outcomes Delivery Policies FAQs

Quick Summary
Clinical Measurement Concept To Practice Quality Focus

Core Principles of Calibration and Standardization

Understand why calibration, traceability, and standardization are critical for comparable and defensible laboratory results.

Traceability Chain **Result Confidence**

Review the relationship between reference materials, calibrators, controls, and analytical performance in routine workflows.

Reference Materials **Analytical Performance**

Learn common sources of bias, drift, matrix effects, and measurement variation that influence calibration quality.

Bias Control **Drift Review**

Connect calibration planning to method verification,

documentation, and ongoing quality monitoring requirements.

Method Verification **Documentation**

Build a practical vocabulary for discussing metrology concepts with laboratory, quality, and instrumentation teams.

Metrology Basics **Team Communication**

Overview
Calibration Science **Interactive Learning** **Standards Ready**

Workshop Scope and Learning Outcomes

Explore calibration hierarchies, reference systems, and the role of traceability in method alignment and comparability.

Hierarchy Mapping **Method Alignment**

Interpret how standardization programs support harmonized reporting across instruments, batches, and laboratory sites.

Harmonization **Inter Lab Consistency**

Differentiate accuracy, precision, trueness, uncertainty, and total error in the context of calibration review.

Accuracy Concepts **Uncertainty Basics**

Identify who should attend, including analysts, quality teams, assay developers, and supervisors handling calibrated methods.

Analysts **Quality Teams**

Translate calibration data into decisions about acceptance criteria, corrective action, and preventive quality planning.

Acceptance Criteria **Corrective Action**

Agenda
Hands On Review **Case Driven** **Practical Skills**

Agenda and Hands-on Demonstrations

Map the calibration lifecycle from reference selection and curve generation to verification, monitoring, and review.

Lifecycle Mapping Workflow Control

Work through example datasets to detect drift, shifts, nonlinearity, and failed calibration acceptance patterns.

Dataset Review Trend Detection

Practice documenting traceability statements, control checks, and evidence needed for audit friendly records.

Audit Ready Record Integrity

Review calibration failure scenarios and discuss troubleshooting paths linked to materials, instruments, or operators.

Troubleshooting Failure Analysis

Compare internal standards, external standards, and control charts for sustained analytical quality management.

Control Charts Standard Selection

Deliverables
Templates Included Reference Notes Faq Support

Deliverables, Support Notes, and FAQs

Receive structured notes on calibration terminology, traceability pathways, standardization principles, and review checkpoints.

Learning Notes Review Guide

Get practical examples for calibration documentation, deviation review, and control interpretation in laboratory settings.

Documentation Examples Control Interpretation

Access FAQ guidance on prerequisite knowledge, intended audience, delivery style, and expected workshop outcomes.

Prerequisites   Workshop Outcomes

Use takeaway checklists to strengthen calibration review routines, escalation practices, and quality follow through.

Checklists   Quality Follow Through

Clarify how the concepts apply across clinical chemistry methods, analyzers, and standardized reporting programs.

Clinical Chemistry   Method Applicability

Quick View   Who Should Attend   Outcomes   Delivery   Policies   FAQs