ISO/IEC 17025:2017 Internal Auditor Course: Auditing Testing and Calibration Laboratories

4 – 8 January 2027
Paris - Right Bank business hotel

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Introduction:

ISO/IEC 17025:2017 internal auditor course for auditing testing and calibration laboratories is a 1-week course for laboratory quality, technical and audit staff, ending with a Laboratory Internal Audit Programme and Audit Report. Many laboratories run internal audits that check documents but miss weak metrological traceability, unverified methods and unsupported measurement uncertainty, leaving gaps that surface during accreditation assessment. Nominees already work within a laboratory management system, and teaching is by case study on real test reports, calibration certificates and technical records. CoreConcept Training Center delivers this ISO/IEC 17025 internal auditor course.

Course Objectives:

- Interpret the general, structural, resource, process and management system requirements of ISO/IEC 17025:2017 as audit criteria
- Plan an internal audit programme and individual audits using the ISO 19011 audit principles
- Conduct vertical, horizontal and witness audits and collect objective evidence from records and interviews
- Evaluate technical evidence on metrological traceability, method validation, measurement uncertainty and validity of results
- Write clear nonconformity statements and verify the effectiveness of corrective action
- Produce a Laboratory Internal Audit Programme and Audit Report ready for management review

Target Audience:

- Quality staff responsible for maintaining the laboratory management system and its documented information
- Internal auditors responsible for planning and performing audits of laboratory activities
- Technical staff responsible for test and calibration methods, equipment and results
- Analysts and calibration specialists responsible for technical records and reporting
- Laboratory section supervisors responsible for corrective action within their units

Course Outline:

Day 1: ISO/IEC 17025 Requirements Read as Audit Criteria

- ISO/IEC 17025 Scope, Structure and Laboratory Competence Purpose
- Impartiality and Confidentiality Requirements Read Through an Auditor Lens
- Structural Requirements and Laboratory Responsibility for Activities
- Option A and Option B Management System Comparison
- Risk-Based Thinking Within ISO/IEC 17025 Laboratory Requirements

Day 2: Audit Principles and Programme Planning

- ISO 19011 Audit Principles Applied to Laboratory Audits
- Internal Audit Programme Planning Across Laboratory Activities
- Audit Scope, Criteria and Objectives Definition for Laboratories
- Audit Checklist Design Mapped to ISO/IEC 17025 Clauses
- Auditor Competence, Independence and Audit Team Roles

Day 3: Conducting Laboratory Audits

- Vertical Audit Tracing One Test Report to Records
- Horizontal Audit of One Requirement Across Laboratory Sections
- Witness Audit of Test and Calibration Activities
- Personnel Competence Records and Authorisation Evidence Review
- Interviewing Techniques and Objective Audit Evidence Collection

Day 4: Auditing Technical Requirements and Recording Findings

- Metrological Traceability and Equipment Calibration Records Audit
- Method Verification and Validation Evidence Evaluation
- Measurement Uncertainty Evaluation Records Audit Approach
- Ensuring Validity of Results and Decision Rules Review
- Nonconformity Statement Writing With Requirement, Evidence and Finding

Day 5: Case Study Work and the Laboratory Internal Audit Report

- Laboratory Case Study Audit Plan and Checklist Preparation
- Case Study Review of Technical Records and Reports
- Corrective Action Evaluation and Root Cause Follow-Up
- Audit Findings Grading and Management Review Inputs
- Laboratory Internal Audit Programme and Audit Report Completion

Skills You Will Gain:

- Laboratory Audit Planning
- Audit Checklist Development
- Vertical and Horizontal Auditing
- Witness Auditing
- Metrological Traceability Review
- Measurement Uncertainty Review
- Nonconformity Reporting
- Corrective Action Verification

Why Attend This Course:

- Deliver a Laboratory Internal Audit Programme and Audit Report to the quality manager and laboratory management for the next management review
- Decide whether laboratory evidence meets an ISO/IEC 17025:2017 requirement or must be raised as a nonconformity
- Avoid findings at accreditation assessment that internal audits should have detected and corrected earlier
- Coach colleagues on audit checklists, evidence collection and nonconformity wording used across the laboratory

Conclusion:

Back at work, the participant presents the Laboratory Internal Audit Programme and Audit Report to the quality manager and laboratory management. They use it to schedule audits across all laboratory activities, assign independent auditors and decide which findings need corrective action before the next accreditation assessment. After the first audit cycle, the laboratory should review whether audits reached technical records as well as documents, whether corrective actions closed on time and proved effective, and which checklist questions need refining for the following cycle.

Frequently Asked Questions FAQ:

What should participants know before an ISO/IEC 17025 internal auditor course?

Participants should already work in a testing or calibration laboratory and know its management system documents. Prior audit experience is not required. Bringing a sample test report, calibration certificate or procedure helps apply the case study exercises to their own laboratory.

How does an ISO/IEC 17025 internal auditor course differ from an ISO/IEC 17025 implementation course?

An implementation course teaches how to build and document a laboratory management system. This course teaches how to audit one that already exists: planning audits, collecting evidence, judging conformity, writing nonconformities and following up corrective action.

Why should ISO/IEC 17025 internal audits include technical records and not only documents?

Laboratory competence rests on technical evidence. Audits that check only procedures miss gaps in traceability, method validation, measurement uncertainty and validity of results, which are the areas external assessors examine closely in test and calibration work.

What do participants take back from the ISO/IEC 17025 internal auditor course?

Participants take back a Laboratory Internal Audit Programme and Audit Report, with an audit schedule, checklists mapped to the standard, sample nonconformity statements and a corrective action follow-up record ready for use in their laboratory.