Certified Calibration Technician Exam Preparation Course

1 – 5 February 2027
Addis Ababa

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Training Center

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Ref: 361_223578 **Date:** 1 – 5 February 2027 **Location:** Addis Ababa **Fees:** 6000 Euro

Overview

Certified Calibration Technician Exam Preparation Course is a one-week intermediate course for calibration, metrology, quality, laboratory, maintenance, and instrumentation personnel who leave with an exam-readiness map and study plan. It connects metrological traceability, measurement uncertainty, calibration procedures, measurement-system analysis, applied statistics, laboratory quality systems, safety, and exam-style problem solving. The course organizes technical review around workplace artifacts and diagnostic practice without promising certification, eligibility, or examination success. Agile Leaders Training Center delivers this course on calibration technician exam preparation.

Who Should Attend

- Calibration functions responsible for testing, adjusting, maintaining, and documenting measuring equipment
- Metrology functions responsible for reference standards, traceability chains, and measurement capability
- Quality functions responsible for equipment control, records, audits, and nonconforming work
- Laboratory functions responsible for environmental controls, technical records, and reported results
- Maintenance and instrumentation functions responsible for measurement reliability and equipment serviceability

The course assumes participants already work with measurement or calibration activities and leaves out entry-level mathematics instruction and instrument-specific repair training.

Departments and Industries

The course supports calibration and measurement responsibilities across manufacturing, laboratories, utilities, healthcare technology, aerospace, and maintenance services.

- Calibration and metrology laboratories
- Quality assurance and quality control departments
- Manufacturing maintenance and instrumentation teams
- Testing, inspection, and product validation functions
- Healthcare technology and biomedical equipment services
- Aerospace, energy, and industrial engineering operations

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Learning Objectives

By the end of this course, participants will be able to:

- Apply SI units, conversions, and measurement characteristics
- Analyze traceability chains, standards, specifications, and error sources
- Use calibration methods, procedures, records, and result reports
- Build measurement uncertainty budgets using technical evidence
- Evaluate statistics, quality controls, nonconformance, and laboratory safety
- Diagnose exam-readiness gaps and prioritize a study plan

Course Agenda

Day 1: Metrology and Measurement Foundations

- SI Base and Derived Unit Conversion Method
- Measurement Standards Classification and Selection Matrix
- Metrological Traceability Chain Map
- Measurement Characteristics Comparison Table
- IM&TE Specification Interpretation Method

Day 2: Measurement and Calibration Systems

- Direct, Indirect, Ratio, Transfer, and Substitution Method Selection
- Measurement Error Source and Environmental Influence Matrix
- Calibration Procedure Component Checklist
- Manual and Automated Calibration Validation Map
- Calibration Interval, Recall, and Equipment Status Control Flow

Day 3: Uncertainty, Mathematics, and Statistics

- Scientific Notation, Ratios, and Engineering Conversion Toolkit
- Descriptive Statistics and Distribution Analysis Method
- Type A and Type B Uncertainty Component Register
- JCGM GUM Measurement Uncertainty Budget
- Control Chart and Gage Repeatability-Reproducibility Interpretation

Day 4: Laboratory Quality and Technical Control

- ISO/IEC 17025:2017 Laboratory Competence Requirements Map
- Document Control, Record Integrity, and Calibration Certificate Checklist
- Nonconforming Calibration and Corrective Action Workflow
- Audit Evidence and Measurement Assurance Review Matrix
- Laboratory Hazard, Protective Equipment, and Housekeeping Checklist

Day 5: Exam Preparation Practice

- Suggested Exercise: Metrology and Traceability Question Analysis
- Suggested Exercise: Calibration Procedure and Error-Diagnosis Case
- Suggested Exercise: Uncertainty and Statistics Calculation Review
- Suggested Exercise: Quality, Records, Ethics, and Safety Decision Drill
- Capstone Exercise: Calibration Technician Exam-Readiness Map and Study Plan

Practical Exercises

The course uses suggested activities to connect exam topics with calibration evidence and workplace decisions.

- Suggested activity: construct a traceability chain and identify missing measurement evidence.
- Suggested activity: build an uncertainty budget from Type A and Type B components.
- Suggested activity: review a calibration record for technical, quality, and reporting gaps.
- Suggested activity: classify practice-question errors and convert them into study priorities.

FAQs

Who suits Certified Calibration Technician exam preparation, and what does it assume?

Certified Calibration Technician exam preparation suits calibration, metrology, quality, laboratory, maintenance, and instrumentation personnel with workplace exposure to measurement activities and technical calculations.

How does calibration technician exam preparation differ from basic metrology training?

Calibration technician exam preparation integrates metrology, calibration systems, uncertainty, statistics, quality, records, ethics, and safety around diagnostic review, while basic metrology training usually establishes measurement concepts without an exam-readiness structure.

Does Certified Calibration Technician exam preparation award certification?

Certified Calibration Technician exam preparation provides structured study and practice only; certification, eligibility decisions, examination administration, and results remain with the relevant certification body.

Why is measurement uncertainty important in calibration technician exam preparation?

Measurement uncertainty connects reference standards, methods, environmental effects, equipment performance, and reported results, making it central to evaluating measurement evidence and solving technical questions.

How does metrological traceability support calibration decisions?

Metrological traceability links a measurement result to a stated reference through a documented calibration chain, with each link contributing evidence and uncertainty information needed for defensible results.

Conclusion

Participants leave with a Calibration Technician Exam-Readiness Map and Study Plan linking technical domains, practice evidence, calculation gaps, and review priorities. The map changes broad revision into sequenced study actions. It gives participants a practical basis for selecting references, practicing calculations, reviewing procedures, and monitoring readiness without implying certification or predicting an examination result.