

WHY BECOME A CERTIFIED CALIBRATION TECHNICIAN?

Certified Calibration Technicians (CCTs) are critical to many industries because they build processes that reduce risk associated with measurement (such as form, fit, and function), regulatory requirements, and international standardization. CCTs establish accurate testing and measurement procedures, maintain and repair a variety of measurement and test equipment, and ensure these devices are calibrated correctly in conformance to established standards such as ISO/IEC 17025 and other industry-specific standards.

What New Skills and Techniques Will You Learn?

- A broad focus on general metrology techniques that cover base and derived SI units, measurement standards, common measurements, and fundamental constants.
- Strong measurement abilities that focus on learning and skill-executing methods such as UUT, gage R&R, etc. Advanced application of calibration systems that focuses on procedures and adjustment methods, process flow for IM&TE, and validation processes and reporting.
- Application of advanced math operations to calculate uncertainty components associated with measurement accuracy.
- Calibration of quality systems and standards that focus on strategic tactical processes, quality tools and auditing, CAPA, occupational safety, and quality standards and guides.
- Insight into the various experience level functions of a metrology department from the beginner to the lab manager.

What Is the Value to Your Company?

The goal of calibration is to minimize any measurement uncertainty by ensuring the accuracy of test equipment. Calibration quantifies and controls errors or uncertainties within measurement processes to an acceptable level. Specifically, calibration:

- Enables users and businesses to have confidence in the results they monitor, record, and subsequently control.
- Keeps processes safe. For example, when measuring any parameter, such as force or electric current, it is important that the quantities being measured are accurate to maintain product safety. Inaccurate measurements could pose a safety hazard.
- Can help to reduce costs from manufacturing errors. For example, in manufacturing, a production process resulting in defects can be very costly. This is expensive in both time and resources; or, worse yet, defective parts could be delivered to your client.
- Maintains an organization's certification or accreditation. When a test lab would like to make use of a calibration laboratory, they need to know they can trust the service provider to perform the calibration in a proficient and reliable manner. Therefore, maintaining certification through calibration ensures that a laboratory can consistently perform requested analyses that are up to industry-specific standards.

What Is the Value to You?

- Improved knowledge, skills, and abilities qualify you for more positions within modern business industries that require demonstrated competency in metrology.
- Certified Calibration Technicians with five years of experience make an average salary of \$72k per year; compared to those without CCT certification, who make approximately \$61k (national average).*

**Please see the current Quality Progress Salary Survey at: asq.org/qualityprogress/.*



Qualifications and Requirements for CCT Certification

Candidates must have five years of on-the-job experience in one or more of the areas of the CCT Body of Knowledge.

Education

Candidates who have completed a degree from a college, university, or technical school can waive part of the five-year experience requirement as follows:

- Diploma from a technical, military, or trade school—two years waived
- Associate's degree—two years waived
- Bachelor's degree—two years waived
- Masters's or doctorate degree—two years waived

Calibration Technician Learning Resources and Certification Preparation

- Calibration Technician Certification Preparation Training (on-site and online learning)
- *The Metrology Handbook, Second Edition*
- Measurement Quality Division—an ASQ professional network

Recertification Required?

Yes, every three years.

How to Enroll for Certification

Visit asq.org/cert

MARKETPLACE INFORMATION

COMMON JOB FUNCTIONS

Calibration Technician
Consultant
Engineer
Inspector
Manager
Metrologist

COMMON INDUSTRIES

Aerospace
Calibration
Electrical
Government
Manufacturing
Medical Devices
Military/Defense
Pharmaceutical
Service
Testing

Key Market Trends

- According to a 2016 calibration services research brief, the global market for calibration services is projected to reach \$7.4 billion by 2022.
 - This forecasted statistic is based on the adoption of metrology in manufacturing and the ensuing demand for calibration services to ensure accuracy and precision of measuring instruments.
- The calibration services market has promising steady growth: Increased quality awareness, protective maintenance, and strict government regulations are the key factors.
 - Factors such as high competition and lack of skilled labor are limiting the market growth of the calibration services market.
- Focus on preventive maintenance and high quality standards.