

Calibration Technologists and Technicians

SOC: 17-3028 • Career Profile Report

■ Key Facts

\$65,040

Median Salary

15,800

Employment

+5.0%

Growth Rate

■ Requirements & Salary Range

Education: Associate's degree

■ Automation Risk Assessment

Low Risk - 17.0% probability of being automated in the next 10-20 years.

This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■■ Work-Life Balance

7.2/10 - Good work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.2/10	Investigative	8.8/10
Artistic	6.4/10	Social	5.2/10
Enterprising	5.8/10	Conventional	6.6/10

■ Top Skills Required

Communication skills, Critical-thinking skills, Detail oriented, Dexterity, Physical strength, Technical skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Calibration Technologists and Technicians test, adjust, and maintain **precision instruments and equipment to ensure accuracy and proper function**. They work with measurement devices used in manufacturing, laboratories, and engineering settings. Their work is critical in quality control, production accuracy, and safety standards.

This career is well suited for individuals who enjoy technical work, problem-solving, and working with precise instruments.

What Do Calibration Technologists and Technicians Do?

These professionals calibrate and maintain instruments, verify measurements, and document results to ensure equipment operates correctly.

Common responsibilities include:

- Testing instruments and equipment for accuracy
- Adjusting, repairing, or replacing components as needed
- Maintaining calibration records and logs
- Operating precision measurement tools and software
- Ensuring compliance with industry and safety standards
- Collaborating with engineers, quality control staff, and production teams
- Troubleshooting equipment issues and recommending improvements

Key Areas of Calibration Technology

Technologists and technicians may focus on specific instruments, measurement methods, or industries:

- Electrical and Electronic Calibration: Testing circuits, sensors, and electrical devices
- Mechanical Measurement: Adjusting torque, pressure, or dimensional instruments
- Quality Assurance and Compliance: Verifying equipment meets standards and regulations
- Instrumentation Maintenance: Regular upkeep and troubleshooting of measurement devices
- Data Recording and Analysis: Documenting calibration results and trends

Skills and Abilities Needed

These professionals combine technical, analytical, and precision skills.

Core Professional Skills

Personal Qualities That Matter

Education and Career Pathway

This role typically requires formal education and hands-on experience:

- High School Diploma or GED (minimum): Courses in math, physics, or electronics
- Technical or Vocational Training: Calibration, instrumentation, or engineering technology programs
- On-the-Job Training: Practical experience in calibrating and testing instruments
- Certification (optional but recommended): Credentials in calibration, metrology, or instrumentation
- Continuing Education: Staying current with measurement technology, standards, and industry practices

Where Do Calibration Technologists and Technicians Work?

They are employed in organizations that require precise measurements and quality assurance:

- Manufacturing and Production Facilities
- Research and Testing Laboratories
- Engineering and Industrial Companies
- Government and Regulatory Agencies

- Calibration and Service Companies

Work environments include laboratories, production floors, industrial sites, and testing facilities.

Is This Career Difficult?

This career requires precision, technical expertise, and attention to detail. Calibration technologists must ensure instruments function accurately and comply with industry standards.

Who Should Consider This Career?

This career may be a strong fit if you:

- Enjoy technical, hands-on work with instruments
- Are detail-oriented and precise
- Have strong problem-solving and analytical skills
- Can work with engineers and production teams
- Want a career ensuring accuracy, quality, and safety in measurements

How to Prepare Early

- Take courses in mathematics, physics, electronics, or engineering technology
- Participate in vocational or technical programs in instrumentation and calibration
- Gain hands-on experience with measurement tools and devices
- Learn industry standards and quality control procedures
- Develop problem-solving, analytical, and recordkeeping skills

Calibration technologists and technicians ensure the accuracy and reliability of precision instruments, supporting quality control, safety, and effective operation across industries.

*Generated by StartRight • Data from U.S. Bureau of Labor Statistics & O*NET*

Source: <https://www.bls.gov/ooh/installation-maintenance-and-repair/calibration-technologists-and-technicians.htm>