FLUKE®

Calibration and Metrology
Online Training Courses

Technical Data

Fluke is offering a series of self-paced web courses designed to enhance the skill level of calibration technicians. These courses are presented in an easy-to-access, menu-driven curriculum that allows the student to concentrate on the topics specific to his or her job at a comfortable pace.

At the start of each module, a brief tutorial describes how the course is positioned. The learning objectives are stated clearly. A glossary is available for you to access key words. Topics are selected from easy-to-navigate menus and sub-menus. Imbedded questions are presented frequently to increase retention. Engaging graphics, photos, formulas and tables support the text material. A Pre-Test can be used to establish a baseline proficiency level and a final Post-Test provides proof of competency. If you reach at least 80 %, you can print a certificate of completion to satisfy your documentation requirements.

These courses are recommended as a refresher for metrology or calibration personnel, technicians or new hires. Each course assumes basic electrical background, but no metrology experience is required.

Course titles

- Introduction to Measurement and Calibration
- Precision Electrical Measurement
- Measurement Uncertainty
- AC-DC Metrology

Certificate of completion

You have the ability to print a certificate of completion if you receive a passing grade on the course post-test. In addition, Fluke will send you a framed certificate of completion to display on your wall or desk.

Cal-Book

Each registered attendee of a Fluke online course will receive the textbook, *Calibration: Philosophy in Practice* – a $70 value. This is a comprehensive textbook on dc/low frequency metrology and covers real world concepts and applications.

Registration

Register online at training.fluke.com. Select "Register and Pricing" from the sidebar menu for a secure registration form. You will be prompted for a credit card, username, password and preferred start date.

MET/SUPPORT℠ Gold members can enter their Gold membership number on the registration form for automatic calculation of the discount. You will receive an email confirmation with a 10-day window to complete the course.

If you have questions, visit the website at training.fluke.com, or you may call (425) 446-6330 or email caltraining@fluke.com.

Course descriptions

Introduction to Measurement and Calibration

Course No. TRC 4001
Estimated completion time 2–4 hours
This course instructs the user on basic concepts of measurement and calibration. It is recommended for new hires, students, or as a refresher for technicians.
Course topics:
- Introduction: Metrology and Measurements
- Development and Concerns of Metrology
- Standards and Standardization
- Managing the Metrology System
- Making Good Measurements
- Elements of a Measurement System
- Units and Measurement Instruments

Precision Electrical Measurement

Course No. TRC 4002
Estimated completion time 6 hours
Making precision measurements is a skill that takes practice and experience to master. This course will increase your knowledge of terminology, concepts and procedures to help you become more proficient.
Course topics:
- Basic DC and Low Frequency Measurement
- Standards and Traceability
- Practical Considerations for Precision Electrical Measurement
- Measurement Error
- Safety Tips
- Good Laboratory Practices
- Hints for Making Better Scope Measurements

Measurement Uncertainty

Course No. TRC 4003
Estimated completion time 6–8 hours
Producing high quality products depends on the accuracy or uncertainty in your measurement system. Learn the fundamental concepts of measurement uncertainty, how to successfully determine measurement uncertainty and quality improvement techniques.
Course topics:
- Uncertainty Budgets
- Essentials of Expressing Measurement Uncertainty
- Specification
- Risk Analysis Introduction
- Related Statistical Tools
- Standards
- Software

AC/DC Calibration and Metrology

Course No. TRC 4004
Estimated completion time 6 hours
All ac/dc measurements performed in your lab rely on traceability to international standards (SI units). Learn the basic concepts of ac/dc metrology, including the theory and application of thermal transfer standards to measure ac voltages and currents, definition of inductance and capacitance, and the measurement of impedance, admittance and immittance.
Course topics:
- Basic Concepts of AC-DC Metrology
- Using AC-DC Transfer Standards
- Inductance and Capacitance
- Immittance and AC Ratio

Fluke. *Keeping your world up and running.*

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