



Internal Calibration for Analytical Laboratories

One Training Day

What?

Learn to competently propagate the uncertainties associated with temperature, volume, and mass from laboratory reference instruments to those instruments used for testing. Establish credible traceability of measurement. Ensure that internal calibration procedures meet competence criteria for the desired levels of uncertainty to be propagated.

Note: This course is not to train laboratories how to calibrate instruments for use by other labs.

Who?

For all laboratory staff involved in laboratory testing operations and QA/QC procedures:

- Writing procedures
- Conducting tests
- Conducting QA/QC
- Preparing standards
- Purchasing calibration services

How?

This 1-day Training Course is for participants to learn to competently propagate uncertainties for mass, temperature, and volume instruments in the range parts per ten to parts per thousand – the smallest uncertainties can be propagated in a testing lab.

Participants are provided training material related to basic measurement instrument calibration and a listing of supporting information

Syllabus (09:00 - 16:30)

Introduction and Objectives

- Course aims
- Approaches to learning

Understanding Traceability

- Requirements
- Uncertainty and quality
- Definitions and theory

-- Break (15 minutes) --

- Trueness and precision
- Effect of calibration on results
- Using the sample spreadsheet

-- Lunch (1 hour) --

Balance Calibration

Thermometer Calibration

-- Break (15 minutes) --

Pipette Calibration

Certificates of Calibration

Call us at (613) 233-5300

or

Visit <http://cael.dameco.com/Coursesoffered.asp> for this course on line