

Uncertainty of Measurement for Chemistry Testing

What?

Learn to estimate the uncertainties associated with environmental testing results. Establish credible levels of confidence in specific test results.

Who?

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

- Writing procedures
- Conducting tests
- Conducting QA/QC
- Specifying reference materials
- Preparing standards
- Authorising reports
- Purchasing calibration services

How?

This 1-day Training Course is for participants to experience real examples to work through and jointly develop solutions to common measurement situations.

Participants are provided training material related to measurement uncertainty and a listing of supporting information.

The course contains extensive reference to the Canadian and international interpretation and implementation guidance documents which are used by accredited laboratories.

Course Outline

Introduction and Objectives

- Course aims
- Approaches to learning

Background and Principles

- The quality of measurement
- Uncertainty and traceability

Uncertainty Basics

- Basic laboratory statistics 1
- Basic laboratory statistics 2
- Uncertainty basics and definitions
- QC data in identifying contributions

-- Break (15 minutes) --

Estimation Processes

- 1 – Specify the measurement
- 2 – Examine the components
- 3 – Determine the relationships
- 4 – Estimate the standard uncertainty
- 5 – Estimate the combined uncertainty
- 6 – Estimate the expanded uncertainty
- 7 – Considering sampling

-- Lunch (1 hour) --

Sample exercises

-- Break (15 minutes) --

Sample exercises (continued)

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Call us at (613) 233-5300 or;

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Visit http://www.cala.ca/t_caalpubs.html to order the self-study binder