

Uncertainty of Measurement for testing laboratories

Course Objectives

The objective of this course is to introduce analysts to the basic concepts of the estimation of uncertainty of measurement. During the evaluation of the measurement uncertainty, the focus will be on the identification and quantification of individual uncertainty sources according to the principles of the Guide to the Expression of Uncertainty of Measurement (GUM) (Type A and B evaluations). To combine these uncertainties into the final expanded measurement uncertainty, participants will be taught simplified approaches such as the use of relative uncertainties and method validation data. Throughout the course, participants will have the opportunity to practise what they have learnt with several classroom-based examples.

Course Content

The course consists of the following topics:

- Introduction to the Guide to the Expression of Uncertainty of Measurement
- Method of Evaluation of Uncertainty according to the GUM
- How to prepare fishbone diagrams for the identification of uncertainty contributions
- How to quantify your uncertainty sources as Type A or Type B uncertainties
- How to calculate the sensitivity coefficients for the calculation of the combined standard uncertainty
- Calculation of expanded uncertainty and report your measurement uncertainty



Course Date

28 – 30 October 2024

Duration

3 days

Cost

R6 350

Who should attend?

The course is aimed at analytical chemists, microbiologists, and other types of testing analysts, who need to develop and validate methods and monitor analytical methods to make sure they operate under statistical control in the laboratory.

Course information

NMISA's courses are developed and presented by experts in the field. The course will include a written examination at the end of the course to receive a certificate of completion.

Enrolment is simple, and the courses are reasonably priced.

Visit training.nmisa.org for more information.

