SQT

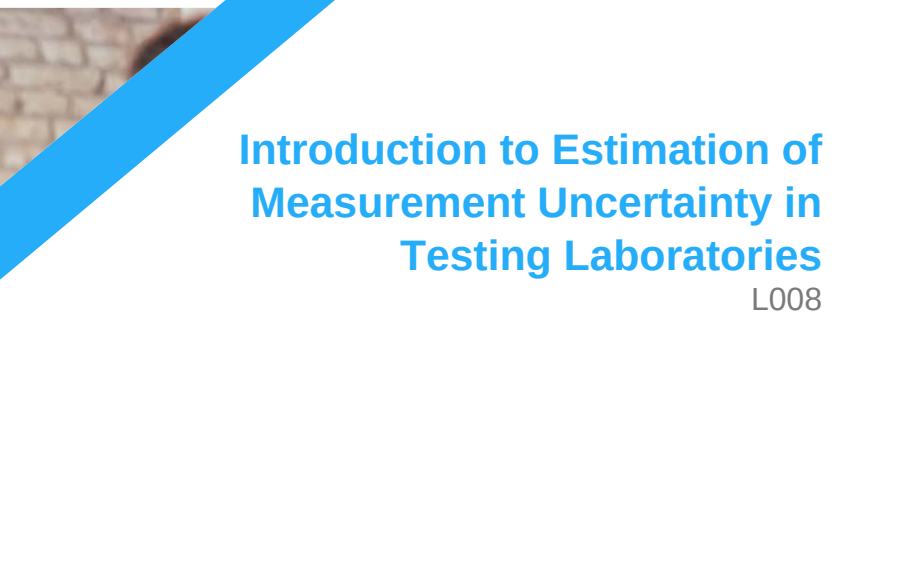
TRAINING THAT DEVELOPS *REAL* CAPABILITY











Introduction to Estimation of Measurement Uncertainty in Testing Laboratories

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Introduction to Estimation of Measurement Uncertainty in Testing Laboratories

The update to ISO 17025 in 2017 contains new requirements for testing laboratories in relation to decision rules and statements of conformance. ISO17025:2017 was updated with the purpose of providing laboratory customers confidence in the results reported. It's not possible to know the level of risk nor to make a statement of conformance if the measurement uncertainty has not been calculated.

"How certain are you of the measurements in your test report? How well does the result represent the value of the quantity being measured?" Customers often expect testing laboratories to get matching results for the same samples. However, it may be that one laboratory reports a pass result and another reports a fail result. Calibration labs have always been required to determine measurement uncertainty. The situation in testing is still evolving and testing laboratories are faced with numerous difficulties.

This course explains the concept of measurement uncertainty and describes the approaches for estimation of uncertainty within a testing laboratory. It is suitable for those who have previously calculated measurement uncertainty or are at the early stages in this process.

The aim of this programme is to provide delegates an introduction to the tools and knowledge they need to;

- Select an approach for measurement of uncertainty of their test method
- Calculate and combine uncertainties
- Report uncertainty in their test reports
- Comprehend the relationship between measurement uncertainty, decision rules and statements of conformance.

Duration & Price

Duration: 2 days
Public Virtual Training: €890
Delivery mode: This programme is available In-Company, and via Public Virtual Training

Dates & Locations

Date	Venue	
20 & 22 Apr 2027	Virtual	Book Date

In-Company Training

Please contact us for more information on our In-Company training options

What's covered?

This course will cover;

- The concept of measurement uncertainty.
- Sources of uncertainty within the test laboratory.
- The statistical techniques for calculation of uncertainty.
- An overview of the various approaches for estimation of measurement uncertainty.
- The GUM approach for estimation of uncertainty.
- Single laboratory validation approach
- ISO19036:2019 approach for estimation of uncertainty in microbiology.
- A discussion on other evolving guidance for estimation of uncertainty.
- How to update contract review forms to include agreement with clients on decision rules and statements of conformity.
- How to report uncertainty and statements of conformity in test reports
- Completion of a Gap analysis checksheet which encourages trainees to consider the requirements of ISO17025:2017 and is a useful basis for an action plan.

The training programme is interactive and applies different training methods and styles to deliver the key messages effectively e.g. discussions, group activities and demonstrations. The training includes practical exercises enabling the trainee to verify their knowledge and skills.

The Tutor is experienced in auditing against the ISO17025:2017 and in supporting laboratories with uncertainty calculations and will share experiences on expectations and outcomes by accreditation assessment bodies and laboratory clients.

Who should participate?

Anyone who requires a basic understanding of uncertainty of measurement and for those who want to calculate & report uncertainty of measurement for their test methods including;

• Laboratory Managers
• Supervisor
• Technicians
• Analysts
• Laboratory customers and end users of measurement data.

What will I learn?

Participants achieve the following learning outcomes from the programme; By the end of this training course you will be able to:

- Understand the concept of measurement uncertainty and the specific compliance requirements in ISO17025:2017.
- Appreciate the sources of uncertainty within the test method.
- Determine which of the approaches available for estimation of uncertainty is suitable for your test methods.
- Consider the needs of your customers and update contract review forms and test reports to include determination of decision rules and compliance statements.

How do we train and support you?

In-House Courses

Course tutor will contact your organisation in advance. In-house courses can be customised to meet your organisation's specific requirements. Where appropriate, course exercises can be carried out using procedures, data etc from your organisation.

Course Manual

Delegates will receive a very comprehensive course manual.

Tutors



Anne Marie Newell
View Profile

What Our Learners Say

We believe in excellence through transparency and continuous improvement. That's why we invite all our delegates to share their experiences on CourseCheck.com, an independent platform dedicated to genuine, unfiltered feedback. Learner insights help us not only to enhance our training programmes but also empower potential learners to make informed decisions. Click on the link below to read firsthand experiences and testimonials from past learners.



Click Here

SQT TRAINING THAT DEVELOPS *REAL* CAPABILITY

SQT provide a unique combination of high quality, accredited, practical training delivered by leading industry experts and supported by the most up to date learning technology and tools

LEAN SIX SIGMA, PROCESS & PROJECT MANAGEMENT

- Lean Six Sigma
- Join our Lean Six Sigma Network
- Continual Process Improvement
- Project & Programme Management

COMPLIANCE, STANDARDS & AUDITING

- Quality
- Environment & Energy Management
- Health & Safety
- Food Safety
- Life Sciences
- Laboratory
- Integrated Management Systems

LEADERSHIP & PERSONAL DEVELOPMENT

- Leadership & Personal Development
- Train the Trainer

QQI AWARD | IEMA APPROVED | CompEx Part of the JTL Group | FSPCA FOOD SAFETY PREVENTIVE CONTROLS ALLIANCE | CQI IRCA APPROVED TRAINING PARTNER | Chartered Institute of Environmental Health

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