

# ISO 17025 and Laboratory Quality Management



Focus on: **The Manager**  **The Specialist**  **Spotlight Programme**  **Hands-on Skills**

## Course Overview

Testing laboratories have always been at the forefront of environmental, forensic, Health and Safety and compliance investigations. Data provided by laboratories are used in decision making and, as such, carry a significant amount of responsibility and professional indemnity. Therefore, laboratories need to make sure that they will never be legally or otherwise exposed by inaccurate or inconsistent results.

The ISO17025 international standard sets the benchmark for assessing the competence of testing laboratories.

This course will provide attendees with the opportunity to develop good understanding of the core principles of the standard and develop their skills towards successful implementation of this into their organizations.

Course Objectives		This Course is Ideal For:	
1	Understand the structure and requirements of ISO7025	✓	Laboratory managers
2	Develop their skills in carrying out internal audits	✓	Scientific laboratory staff (Chemists, microbiologists)
3	Enable participants to successfully implement the standard in their organisation and become accredited	✓	Internal auditors and consultants
		✓	Lab technicians and instrument operators

## Course Content

Day	Theme	Coverage
1	Introduction to ISO17025	<ul style="list-style-type: none"><li>Laboratory accreditation versus Certification</li><li>The contents of the standard</li><li>Terms and definitions</li><li>Impartiality and confidentiality requirements</li><li>Structural requirements and legal responsibility</li></ul>
2	Resource requirements	<ul style="list-style-type: none"><li>Personnel selection and ongoing competence</li><li>Laboratory environmental conditions and layout</li><li>Equipment selection and calibration</li><li>Commissioning of new equipment</li><li>Selection and evaluation criteria for suppliers and subcontractors</li></ul>
3	Process requirements of ISO17025	<ul style="list-style-type: none"><li>Test method selection and fitness-for-purpose</li><li>Validation versus verification of test methods</li><li>Standard versus in-house developed methods</li><li>Sampling and sampling uncertainty</li><li>The importance of Uncertainty of Measurement (UoM)</li></ul>

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		<ul style="list-style-type: none"><li>Ensuring the validity of test results – internal/external QC</li></ul>
4	Process requirements of ISO17025 (cont'd)	<ul style="list-style-type: none"><li>Reporting of test results - Test certificates</li><li>Format and specific requirements for Test Certificates</li><li>Amendments to Test Certificates</li><li>Conformity statements and expression of Opinions and Interpretations</li><li>Customer complaints – validation and handling</li><li>Non-conforming work and root cause analysis</li></ul>
5	Management system requirements of ISO17025	<ul style="list-style-type: none"><li>Control of records</li><li>The risk-based approach – addressing risks and opportunities</li><li>Internal audits</li><li>Preventive/corrective actions</li><li>Management reviews</li></ul>

Course Assessment	Certification
<b>Participants will be assessed on:</b> Participation in sessions Completion of exercises & case studies Performance in assessments	Upon successful completion of the course, participants will receive a <b>Certificate of Successful Completion</b> , along with a <b>Transcript of Marks</b> showing the performance by grade in each element of assessment and overall.

Course Instructor
This speaker holds a B.Eng. (Hons) degree in Chemical with Biochemical Engineering and an MBA degree, both from the UK. He has a 35-year experience as director of an ISO17025 accredited laboratory, and he is a water quality consultant to various organizations, including Water Boards, Healthcare facilities, the Hospitality industry, water treatment companies and desalination plants, food manufacturing premises and petrochemical storage terminals. He is one of the leading experts on the control and prevention of Legionnaires' disease, especially in the healthcare and hospitality industries.