



*Training Course:
Metrology Training*

*12 - 16 April 2027
Madrid (Spain)*

Training Course: Metrology Training

Training Course code: MI234751 From: 12 - 16 April 2027 Venue: Madrid (Spain) - Training Course Fees: 6300 € Euro

Introduction:

This training course provides a comprehensive introduction to the metrology function within certified organizations. It focuses on organizing and managing a metrology department, understanding the normative reference systems, and applying quality requirements in measurement processes. Participants will learn to assess and optimize metrology systems in their workplace, ensuring compliance with international standards and improving measurement reliability.

Objectives:

By the end of this course, participants will be able to:

- Understand the role, tasks, and responsibilities of the metrology function.
- Become familiar with normative reference systems such as ISO 9001, IATF 16949, ISO 13485, and ISO/CEI 17025.
- Apply basic measurement concepts, including uncertainty, repeatability, reproducibility, and traceability.
- Organize, monitor, and manage metrological resources efficiently.
- Evaluate and improve operational metrology practices to ensure quality and compliance.

Target Audience:

- Engineers and technicians involved in measurement and calibration activities.
- Quality managers and supervisors responsible for metrology compliance.
- Professionals seeking to establish or improve a metrology department.
- Anyone wishing to enhance their understanding of industrial metrology principles and practices.

Outlines

Day 1 - Basic Concepts of Metrology

- Vocabulary and definitions VIM: NF ISO/CEI Guide 99
- Introduction to statistical metrology tools mean, standard deviation, normal distribution
- Concept and use of measurement uncertainty
- Normative reference system overview
- Requirements of ISO 9001
- Special requirements of IATF 16949, ISO 13485, ISO 9100
- Understanding NF EN ISO 10012 recommendations
- Role of COFRAC and ISO/CEI 17025 in calibration management

Day 2 - Reference Metrology and Calibration

- Principles of calibration and verification
- Traceability to national calibration standards
- Review and interpretation of calibration certificates CE and test reports CV
- Best practices for maintaining reference instruments

Day 3 - Managing Metrological Resources

- Identifying and managing measurement systems
- Strategic monitoring of measuring equipment oversight, benchmarking, outsourcing
- Determining appropriate calibration intervals
- Documentation and control of metrological resources

Day 4 - Operational Metrology

- Impact of measurement on production output and quality
- Study of measurement results: repeatability, reproducibility, overall uncertainty
- Measurement capability assessment
- Established methods for declaring conformity to standards

Day 5 - Good Practices and Continuous Improvement

- Continuous improvement of testing and measurement procedures
- Conducting standard audits of measurement systems
- Monitoring and reviewing measurement processes
- Case studies and practical exercises
- Recap, Q&A, and action planning

Registration form on the Training Course: Metrology Training

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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