



LAB116

Laboratory Quality Management and Assurance Systems

Course Introduction:

In today's production of goods and services, quality became a major concern for all business enterprises. Quality management and assurance establish a focus on quality by merging the development of a quality oriented culture with the intensive use of scientific, systematic and quantitative data analysis and decision making tools and techniques. Laboratories play vital roles in product design and development in addition to their traditional roles in verifying the quality levels of ongoing production. Due to their significant impact on the technical decisions, a standard is developed by the International Organization for Standardization to outline a framework for the quality management system that fits with the diverse test and calibration laboratory functions. This course is designed to cover the concepts and principles of quality management and assurance and how they can be implemented in the laboratory environment. Information is to be presented in an interactive manner to help participants in applying the quality management and assurance procedures in each phase of laboratory data production starting from the preparation for sample collection to the issuance of the final report in a manner that minimizes process errors.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- Discuss pavement design of roads and pavements as well as pavement design procedures
- Explain the importance of a quality management system
- List the quality management system essential element
- Describe the history of development of quality principles
- Discuss relationship of this quality model to ISO and CLSI standards

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International Centre For Training & Development

Who Should Attend?

This course is intended for all laboratory managers, supervisors, auditors, analysts and chemists, in addition to other quality assurance and quality control professionals who are interested in managing their functions in accordance with a data-driven approach.

Course Fees:

To be advised as per the course location. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Outline:

Day 1:

PRE TEST

- Introduction
- Facilities and safety
- Equipment
- Purchasing and inventory
- Process control - Sample management
- Process control - Quality control introduction
- Process control - Quantitative quality control

Day 2:

- Assessment - Audits Assessment
- External Quality Assessment (EQA) Assessment
- Norms and Accreditation
- Occurrence management

Day 3:

- Process improvement
- Documents and records

- Information management
- Organization
- Laboratory systems and the impact of laboratory functions on the overall enterprise performance
- Laboratory quality measures

Day 4:

- The dimensions and determinants of quality and quality costs
- The concepts and pillars of quality management systems
- The tools of quality in laboratory work
- The technical and administrative requirements of ISO 17025
- How to conduct a gap analysis to assess the effectiveness of laboratory management practices

Day 5:

- Documentation of laboratory quality plans, standard operating procedures and manuals
- Planning for quality management system implementation in the laboratory environment
- Internal audits, reviews and corrective and preventive actions
- Measurement uncertainty estimation and evaluation

POST TEST

Course Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request".

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session