

Testing and Management in Labs

Staying Current with Modern Testing Requirements

Introduction

The main topics covered in the ACS Testing and Management in Labs training session are those that must be resolved in order to put in place a successful Testing Laboratory Management System. In the current testing services industry, which is increasingly competitive and international, only laboratories with strong infrastructure and capable management can thrive. Laboratory test findings are used in environmental monitoring, forensic and epidemic investigations, public health and safety, and industrial process optimization. Consequently, it is vitally important that laboratories run in a way that ensures reliable findings that are truly valuable to their clients.

Concerns about subcontracting, project management, non-conformities, QC failure investigation, ongoing competency, staff training, business planning, quality assurance, and method selection and suitability for purpose will all be addressed.

The main points of this Course N Carry training lecture are:

- Organizational structure of the testing lab
- The lab's place in the marketplace
- The choice of methods and their suitability
- Participation in proficiency testing (PT) programs and quality control
- Accreditation of laboratories

Objectives

By the time this Course N Carry training course ends, you'll know how to:

- Recognize the fundamental ideas guiding laboratory operations
- Develop the abilities for testing, method selection, and validation
- Arrange and carry out extended testing initiatives
- Utilize root-cause analysis to address issues.
- Create and carry out internal audits, and be familiar with the idea of preventative and corrective measures.

Training Methodology

In order to maximize knowledge, comprehension, and retention of the material provided, this training course on laboratory testing and management will make use of a variety of tried-and-true adult learning approaches. This involves talks on personal experiences between participants, facilitated by the trainer. In addition, group activities, a short video, and case studies will aid in understanding the fundamental ideas of laboratory testing and management.

Organizational impacts

Participants in this Course N Carry training program will be able to reposition their laboratories' competitiveness in the market by doing the following:

- Recognize the untapped niche markets by studying the market structure.
- Use efficient lab management strategies to set yourself apart from the competitors.
- Gain the ability to recognize and meet the demands of actual customers.
- Develop their ability to quickly and effectively adapt to changing market demands.
- Become more knowledgeable about quality control and measurement and test result uncertainty.
- Hone their abilities to conduct efficient internal audits and guarantee the ongoing competency of lab staff

Personal Impact

The following are some of the abilities that participants' training will improve:

- Bolster participants' capacity for resource management and analysis
- Assist students in applying critical thinking to the resolution of analytical difficulties.
- Give useful instruction on how to carry out internal audits efficiently.
- Useful factors should be applied while choosing an instrument and supplies.
- Boost proficiency in addressing client complaints
- Understand how to always preserve and protect the caliber of test findings.

Who should attend?

A wide spectrum of lab testing and management workers can benefit from this training session, but the following will be especially beneficial:

- Managers of testing laboratories
- Microbiologists and analytical chemists
- Technicians in laboratories
- Internal Auditors
- Regulatory agencies and outside auditors
- Consultants for quality assurance

Course Outline

Day 1

An Overview of the Modern Testing Laboratory

- The field of analytical services
- Testing lab types and categories: legal status
- Testing lab operating environment
- Separate, private laboratories
- Public, governmental, and alert labs
- Laboratories that are part of a company
- Testing labs' impartiality and independence
- Social Responsibility of Companies

Day 2

Organizational Chart for a Testing Laboratory

- Job responsibilities
- Job descriptions
- Obligations and their overlap
- Location and workspace
- Monitoring of environmental conditions
- Workflow

Day 3

The Difficulty of Adapting to a Changing Market

- Accreditation
- Certification in line with ISO 17025
- Plan of business
- Strategic relationships and networking
- Subcontractor
- Adaptable specialization
- Taking on multiple tasks at once

Day 4

Concepts and Procedures for Laboratories

- Maximizing the choice and validation of methods
- Regulations pertaining to safety, health, and the environment changing
- Ensuring the continuous suitability of techniques and equipment
- Procedure for commissioning new equipment
- Adjustment and Validation
- Supplier assessment
- Client contentment

Day 5

Should Quality Assurance Be Required or Optional?

- Is it required?
- What's that? How is it carried out?
- Internal examinations
- Internal Quality Control (IQC) and External Quality Assurance (EQA)
- Uncertainty of test findings
- Non-conformities (remedial/preventive measures, root-cause analysis)
- Continuous competency of staff
- Considering the future