



# AL075:

## Laboratory Management: *The Role of the Quality Manager and Technical Management*

## Training Description:

What does it mean to be a scientist or technician in a laboratory? Why do laboratory staffs ask questions such as what is that substance and why does it react that way?

Since the beginning of time, man has been seen as an inquirer. We are always trying to discover new things, classify everything and to understand the behavior of things. The ability to enquire is one of the most important assets a person in a laboratory can have. You need to be able to act in the role of an inquirer when working in a laboratory environment.

The idea of this course is to give an introduction to working in a laboratory. It is hoped that people become aware of their role and function in a laboratory environment. Whatever the function of the laboratory, it's most important asset is the staff and how those staff perform. This course presents people with the basics to become an integral part of the laboratory and assist the facility to generate data that are of high quality and scientifically reliable.

### Topics to be covered:

- Introductions and course briefing
- Laboratory structure to ensure integrity and competence
- Quality management systems as a framework for business process
- Laboratory facilities
- Services and supplies
- Ensuring competence: Equipment
- Ensuring competence: Personal
- Tenders, contracts and requests – The review process
- Subcontracting
- Ensuring competence – Test and calibration methods
- Handling of samples and items from customers for calibration and test
- Documentation and documentation control process
- Ensuring competence – Performance of calibrations and tests
- Ensuring competence – Management controls
- Identifying potential and actual non-conforming work
- Process of recording and storage and retrieval of records
- Reporting results to client including opinions and interpretations
- Complaints process
- UKAS assessment and the roles of the QM and TM

## Training Objective:

By the end of the training, participants will be able to:

- ✓ Identify the dangerous chemicals and how to minimize the risk associated with them in case of fire, chemical spill or sudden failure of equipment
- ✓ Exercise total quality management in producing reliable, consistent and independent results and on-time to their customers
- ✓ Emphasize on equipment calibration and maintenance as part of the quality assurance and quality control procedures



- ✓ Increase the awareness of the occupational health and safety in the laboratory environment and exercising total professionalism in scientific and management areas
- ✓ Identify the most effective and efficient practice in planning, organizing, prioritizing and executing the business requirements
- ✓ Develop effective communication and interpersonal skills among lab personnel

### Training Designed for:

This course is intended for Laboratory Managers, Analytical Chemists, Medical Scientists, Laboratory Supervisors, Research and Development Scientists, Microbiologists, Food Technologists and Quality Assurance/Control Managers.

### Training Program:

#### DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction
- ❖ Basic Principal and Theory of Chemistry
- ❖ Chemical Laboratory, Historical and review
- ❖ Laboratory Building
  - Laboratory Design Considerations
  - Building Design and Site Selection
  - Floor Planning
  - Laboratory Configuration
  - Building Services and Structure,
  - Laboratory Utility
  - Effective Budgeting in the Laboratory
- ❖ Planning to Work in the Laboratory
- ❖ Laboratory in Operation

#### DAY TWO:

- ❖ Laboratory Management and Operation
  - Principle of Leadership
  - Management Functions
  - Managerial problem Solving and Decision Making
  - Human Resource Management (HRM)
  - Interactive Communication Skills
  - Fundamentals of Financial Management
- ❖ Job Responsibilities
  - Training
  - Reports
  - Dead Files and Old Samples
  - Paperwork Reduction
- ❖ Laboratory Housekeeping
- ❖ Laboratory Records



- Sample Records
- Tests Records
- Results Records
- Personnel Records
- Maintenance Records

#### DAY THREE:

- ❖ Chemicals and Glassware
- ❖ Equipment, Apparatus, and Reagents
- ❖ Safety in Laboratory
  - Safety Responsibilities and Requirement
  - Laboratory Safety Equipment
  - Personal Protective Equipment
  - Handling Chemicals in Laboratory
    - Understanding hazard warning information
    - Material Safety Data Sheets (MSDS)
    - Risk and Safety Statement R/S phrases
    - NFPA
- ❖ Sample Management
  - Sampling
  - Sample Handling
  - Sample Preparations and treatment
  - Sample Preservation and Store

#### DAY FOUR:

- ❖ Type of Chemical Analysis Methods
- ❖ Classical Methods
- ❖ Instrumental Analysis in Laboratory
  - Spectroscopic Analysis
  - Chromatography Analysis
  - Electrochemical Analysis
- ❖ Problem, troubleshoot and Routine Maintenance
- ❖ Comparing Instrumental Techniques
- ❖ Choosing the Right Instrument
- ❖ Validation of Analytical Methods and Development
- ❖ Study Performance and Reporting

#### DAY FIVE:

- ❖ Evaluation of Analytical Data
- ❖ Correction of Errors and Improving Accuracy
- ❖ Laboratory Data Analysis
- ❖ Quality Control and Quality Assurance
- ❖ Laboratory Information Management System LIMS
- ❖ Laboratory Report
- ❖ Laboratory Certification



- ❖ Laboratory Accreditation Requirement
- ❖ Quality Audit (Internal and External)
- ❖ Laboratory Audits (ISO 17025, GLP)
- ❖ Course Conclusion
- ❖ POST-TEST and EVALUATION

### Training Requirements:

“Hands-on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Please note that the above topics can be amended as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

### Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Software & General Discussions
- Pre and Post Test

### Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

### Training Fees:

**As per the course location** - This rate includes participant’s manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

### Training Timings:

#### Daily Timings:

|               |                               |
|---------------|-------------------------------|
| 07:45 - 08:00 | Morning Coffee / Tea          |
| 08:00 - 10:00 | First Session                 |
| 10:00 - 10:20 | Recess (Coffee/Tea/Snacks)    |
| 10:20 - 12:20 | Second Session                |
| 12:20 - 13:30 | Recess (Prayer Break & Lunch) |
| 13:30 - 15:00 | Last Session                  |

**For training registrations or in-house enquiries, please contact:**

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Training & Career Development Department

