



TRAINING PROGRAM



# Good Laboratory Practices For Microbiological Examination Laboratories

## Introduction:

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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.

## Who Should Attend?

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Laboratory managers, analytical chemists, medical scientists, laboratory supervisors, research and development scientists, microbiologists, food technologists and quality assurance/control managers.

## Course Objectives:

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**By the end of this course delegates 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.
- To exercise total quality management in producing reliable, consistent and independent results and on-time to their customers.
- To emphasize on equipment calibration and maintenance as part of the quality assurance and quality control procedures.
- To increase the awareness of the occupational health and safety in the laboratory environment, and exercising total professionalism in scientific and management areas.
- To identify the most effective and efficient practice in planning, organizing, prioritizing and executing the business requirements.
- To develop effective communication and interpersonal skills among lab personnel

## Course Outline:

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- Introduction and expectation of the course
- Laboratory Organization and Personal
- Quality Assurance and Quality Control
- Safety Assurance
- Chemicals Classification
- Protection in the laboratory

- Testing and Measuring Equipment
- Apparatus and Reagents
- Titrations and Distillations and Filtration
- Temperature reading and Viscosity and PH
- Laboratory Communications
- Gas Chromatography ( GC )
- GC / Mass Spectroscopy ( GC / Ms )
- High Pressure liquid Chromatography ( HPLC )
- Atomic Absorption
- Inductively Coupled Plasma
- IR, FTIR, UV, Visible
- Refractive Index ( RI ) and Nuclear Magnetic Resonance ( NMR )
- Test Methods and Procedures
- Reporting Results
- How to Handle Customer's Complaints
- Calibration
- Samples and Test Data Storage
- Inspection and Assessment