

# Medical Laboratory Practices and Management Course

## Course Information Sheet

*Strengthening laboratory systems and capacity for improved diagnostics services*

### Introduction

Laboratory services are an essential component of health care delivery and can be utilised effectively at every level of health care delivery. In the African region, many commonly presenting diseases may be diagnosed using basic, essential laboratory tests. Access to reliable laboratory diagnostic services is among the major challenges contributing to lack of appropriate and timely patient care. In Africa, many health facility managers sideline the laboratory, and diagnostic services are not recognised as an integral part of an effective, quality health care system.

Medical laboratories in Africa are managed by laboratory technical staff, many of whom have not received adequate training in all aspects of laboratory Quality Management Systems (QMS). Currently, many medical laboratories are preparing for national or international accreditation, and in some countries this is becoming a requirement for registration, making the training of laboratory supervisors and managers of paramount importance. The Medical Laboratory Practices and Management Course is designed to prepare laboratory managers to ensure laboratories meet accepted standards in all aspects of laboratory operation and provide quality and reliable diagnostic services to communities.

### Goal

The Medical Laboratory Practices and Management Course contributes to improved health through competency-based training of medical laboratory supervisors.

### Objectives

By the end of the course, graduates of the Laboratory Practices and Management Course should be able to:

1. Discuss principles of quality management systems
2. Demonstrate knowledge and skills in effective laboratory documentation and personnel management
3. Employ knowledge and skills in the management of laboratory resources
4. Demonstrate quality measures employed in the diagnostic cycle
5. Organize the laboratory to enhance safety and productivity
6. Develop systems for continuous quality improvement
7. Demonstrate competency in the evaluation of quality management system and customer satisfaction
8. Employ laboratory data in problem solving and decision making

### Target Group

Laboratory staff with diploma level training or above with at least two years practical experience, including responsibilities in laboratory management and staff supervision.

### Course Organization and Structure

The course is organised to run in Three Phases. Phase One and Phase Three of the training are conducted through distance learning at the participants' work stations, and Phase Two (residential training) is conducted at the Amref Health Africa's Central Laboratory facilities in Nairobi:

- i. **Phase One:** a **two month** pre-training period equivalent to **80 hours** of course work. In this phase, pre-training course tasks and exercises are sent to each participant to carry out a general assessment and examine various aspects of the laboratory services in their own institutions, and make a report. This phase will be conducted between **8 June to 31 July 2020**
- ii. **Phase Two:** this is a **two week residential training** period equivalent to **70 hours** of course work. The purpose of the residential training is to equip the participants with appropriate knowledge, skills and attitudes to undertake and apply quality management systems in their laboratory procedures, and to address diagnostic errors in their places of work for improved health care services. This phase will be conducted between **17-28 August 2020**
- iii. **Phase Three:** This is a **three month work-based training** period equivalent to **120 hours** of course work. This is work-based training conducted at the place of work, designed to enable participants to theory into practice. Participants are expected to implement **Action Plans** developed during Phase Two, and submit a report. This phase will be conducted between **7 September to 27 November 2020**

### Course Modules

The training involves a minimum 270 hours and a maximum of 570 hours of course work and it has 10 Modules:

**Module 1: Course Introduction** and Pre-training Course Tasks and Exercises

#### Module 2: Overview of Health Facility Management

- Introduction to Health Facility Management, Governance and Leadership
- Concepts of Laboratory Accreditation and Quality Management System

#### Module 3: Organization, Documentation and Personnel Management

- Management of Laboratory Records and Documents
- Organization and Personnel Management

#### Module 4: Laboratory Resource Management

- Management of Laboratory Equipment
- Management of Laboratory Chemical and Reagents
- Laboratory Financing and Budgeting
- Purchasing and Inventory Management

#### Module 5: Managing Laboratory Testing Process

- Specimen Management and Reporting
- Point of Care Testing;
- Quality Assurance in Laboratory Services;
- Principles of Outbreak Management and the Role of Laboratory in Investigation of Disease Outbreaks

#### Module 6: Laboratory Design and Biorisk Management

- Essential Laboratory Design and Utilities
- Biorisk Management

#### Module 7: Laboratory Evaluation and Continual Improvement

- Laboratory Audits and Management of Non-conformities
- Fundamentals and Process of Laboratory Support Supervision and Mentorship

#### Module 8: Customer service and Management Review

- Customer Service; Management Review

#### Module 9: Information Management, Utilization and Application

- Laboratory Information Management System
- Introduction to Basic Data Analysis and Utilization
- Introduction to Operational Research
- Fundamentals of Monitoring and Evaluation

**Module 10: Work-based Training** including Implementation of Improvement Projects and other course tasks

### Course Fees: US\$ 2495

The fee covers tuition, course materials, books and other reference materials, stationery and photocopies, courier services, local travel and field trips to supervisory sites, accommodation, meals, and incidental costs within Nairobi.

*For further details about the course and request for application forms, please contact:*

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