



REPUBLIC OF KENYA
MINISTRY OF HEALTH



KENYA MEDICAL LABORATORY TECHNICIANS AND TECHNOLOGISTS BOARD

MEDICAL LABORATORY SCIENCES INSTITUTIONAL CURRICULUM DEVELOPMENT AND HARMONIZATION REGULATORY PROCESS GUIDE

*Pursuant to the Medical Laboratory Technicians and Technologists Act CAP 253 A Laws
of Kenya*

QUALITY ASSURANCE SERVICES

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ABREVAITIONS

COD	Chair of Department
CUE	Commission of University Education
FGD	Focused Group Discussion
GoK	Government of Kenya
HOD	Head of Department
KMLTTB	Kenya Medical Laboratory Technicians and Technologists Board
KMTC	Kenya Medical Tainting College
MLS	Medical Laboratory Sciences
MOA	Memorandum of Agreement
MOH	Ministry of Health
MOU	Memorandum of Understanding
MSDS	Material Safety Datasheet
SOP	Standard Operating Procedure
TVETA	The Technical and Vocational Education and Training Authority
TVET CDACC	The Technical and Vocational Education and Training Curriculum Development, Assessment and Certification Council



INTRODUCTION

The Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB) is a statutory body mandated to oversee the training, practice, business, and employment of medical laboratory technicians and technologists, as stipulated under Cap 253A of the Laws of Kenya. The Board also provides government advisories on related matters, including the validation of in vitro diagnostics through Legal Notice No. 113 of 2011.

Our Vision: “That the Health of every Kenyan will be fully protected through effective regulation of the practice of laboratory medicine.”

Our Mission: “To Exercise General Control and Supervision over training, business, employment and practice of Laboratory Medicine and advice the Government on all related matters.”

Our Core Values: Integrity; Selfless service; Innovation and open-mindedness; Sense of belonging; Pride in what we do.

The Medical laboratory technicians and technologist Act, CAP 253A laws of Kenya gives the Board the responsibility of ensuring that all medical laboratory sciences training institutions meet the desired standards necessary for the delivery of quality medical laboratory services. These standards shall ensure the development of a robust medical laboratory sciences training necessary to meet national and international health obligations that include but not limited to sustainable development goals, universal health coverage, quality healthcare and patient safety.

1. Purpose

This guide provides a standardized framework for the development, review, implementation, and quality assurance of Competency-Based Education and Training (CBET) curricula in Medical Laboratory Sciences within Universities, Kenya medical training college, Technical and Vocational Education and Training (TVET) institutions in Kenya. It outlines the sequential processes, stakeholder roles, required documentation, and quality assurance mechanisms necessary to develop curricula that meet regulatory, professional, and Labour market expectations.

The guide is intended for use by Universities, KMTC, TVET institutions, curriculum developers, education sector regulatory agencies, industry partners and other stakeholders involved in curriculum development and implementation.

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2. Guiding Principles

Curriculum development for Medical Laboratory Sciences shall be guided by the following principles:

- a. Adherence to the format, standards and scope of practice prescribed by the Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB).
- b. Compliance with the Technical and Vocational Education and Training Authority (TVETA) requirements.
- c. Alignment with the Kenya National Qualifications Framework (KNQF).
- d. Competency-based and learner-centred education.
- e. Evidence-based decision making informed by Labour market needs.
- f. Inclusive stakeholder participation throughout the development process.
- g. Continuous quality improvement through regular monitoring and curriculum review.

3. Curriculum Development Leadership

The curriculum development process shall be led by a qualified professional possessing expertise in both Medical Laboratory Sciences and higher education.

The curriculum development lead should possess the following minimum qualifications:

- a. Registration and current licensure by the Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB).
- b. Academic qualifications in Medical Laboratory Sciences.
- c. Demonstrated competence in Competency-Based Education and Training (CBET) curriculum development.
- d. Knowledge of Ministry of education requirements.
- e. Experience in curriculum design, training, assessment, quality assurance and programme implementation.
- f. Demonstrated ability to coordinate multidisciplinary stakeholder engagements.

The curriculum development lead shall coordinate the entire process, ensure regulatory compliance, facilitate stakeholder consultations, oversee curriculum documentation and coordinate validation and implementation activities.

4. Mandatory Preliminary Requirement

Before commencing curriculum development and harmonization, the institution shall obtain the latest approved Medical Laboratory Sciences curriculum and all relevant regulatory documents from the Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB).



The KMLTTB curriculum shall serve as the primary reference document to ensure that the proposed curriculum:

- a. Aligns with the national scope of professional practice;
- b. Addresses minimum professional competencies;
- c. Complies with regulatory requirements for training and licensure;
- d. Incorporates current professional standards and technological advancements; and
- e. Maintains national consistency in Medical Laboratory Sciences training.

No curriculum development process should commence without reference to the current KMLTTB curriculum and associated regulatory guidelines.

5. Stakeholders in Curriculum Development

Curriculum development shall be undertaken through broad stakeholder engagement to ensure relevance, quality, regulatory compliance and responsiveness to industry needs.

Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB) be represented throughout the process

The following stakeholders **may** be represented throughout the process:

(i) Regulatory Bodies

- a. Technical and Vocational Education and Training Authority (TVETA)
- b. Curriculum Development, Assessment and Certification Council (CDACC)
- c. Kenya National Qualifications Authority (KNQA), where applicable

(ii). Government Ministries and Agencies

- a. Ministry of Education – CBET Delivery Unit
- b. Ministry of Health
- c. County Departments of Health

(iii). Professional Bodies

- a. Association of Kenya Medical Laboratory Scientific Officers (AKMLSO)
- b. Relevant professional societies

(iv). Employers and Industry

- a. National referral hospitals
- b. County referral hospitals
- c. Faith-based hospitals



- d. Private hospitals
- e. Private medical laboratories
- f. Research institutions
- g. Public health laboratories
- h. Blood transfusion services
- i. Universities and research centres
- j. Diagnostic equipment suppliers and laboratory technology providers

(v). Academic Institutions

- a. Kenya Medical Training College. (KMTC)
- b. National Polytechnics
- c. Universities offering Medical Laboratory Sciences programmes

(vi). Institutional Representatives

- a. Heads of Department
- b. Medical Laboratory Sciences trainers and/or Lecturers
- c. Quality Assurance Office
- d. Examination Office
- e. Industrial Attachment Office

(viii). Learner Representation

- a. Current trainees
- b. Alumni
- c. Recent graduates

(ix). Development Partners/ collaborators

Where applicable:

- a. WHO
- b. KEMRI
- c. AMREF
- d. Other health sector partners supporting laboratory workforce development

6. Roles of Stakeholders

Each stakeholder may contribute unique expertise during curriculum development.

Stakeholder	Primary Responsibility
KMLTTB	Professional standards, scope of practice, regulatory compliance



KMTC	KMTC adopts the core curriculum frameworks prescribed by KMLTTB for Diploma and higher diploma medical laboratory training
CUE	Institutional compliance and programme accreditation for Universities.
TVETA	Institutional compliance and programme accreditation for TVET institutions
CDACC	Benchmark on Occupational standards,
Employers	Identification of workforce competencies and emerging skills
Trainers	Curriculum design and instructional planning
Industry Experts	Validation of competencies and workplace relevance
Quality Assurance Office	Compliance monitoring and continuous improvement
Students and Graduates	Feedback on curriculum relevance and learning experiences
Ministry of Health	Alignment with national health priorities
Ministry of Education	Policy guidance and educational standards

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