



Kenya Medical Training College



Department of Medical Laboratory Sciences

Background

The training of Medical Laboratory Science professionals started in the country in 1927 at the then Medical Research Centre now called National Public Health Laboratory Services. The first cadre to be trained was Medical Assistants (certificate programme).

In 1945 the training programme was moved to Medical Training Depot, now KMTCC, as one of the college departments. In 1965, Diploma in Medical Laboratory Sciences programme started while higher diploma programme was started 1971. All these courses were offered at KMTCC, Nairobi only.

In 1979, a certificate course was started in seven provincial MTCs except Garissa. The certificate course was, however, gradually phased out giving way for diploma course.

Mission statement

To train middle level health workers with appropriate competencies to provide community-oriented health care service to the nation.



Vision

To be a leading department nationally and internationally for the training of community oriented health professionals through provision of excellent training, research and consultancy services to the public, private and non-governmental organizations involved in the provision of quality health care delivery.

Philosophy

The department of Medical Laboratory Sciences trains medical laboratory sciences professionals with competencies to examine and analyse

biological (human) specimens in order to identify and determine causes of diseases.

The professionals play a crucial role in the prevention of diseases and the promotion of better health.

Courses offered

- Diploma in Medical Laboratory Sciences
- Higher Diploma in Medical Laboratory Sciences

Constituent colleges

Currently the diploma course is offered in the following 10 colleges: Nairobi, Machakos, Kisumu, Nakuru, Kakamega, Nyeri, Embu, Kitui, Kisii and Portreiz.

Higher diploma is offered at KMTC Nairobi only.

Regional trainer

Though majority of students in the department are Kenyans, the department is a leading trainer for East and Central African countries.

Sections of the department

- **Microbiology** – It deals with the study of minute living organisms e.g. *Salmonella typhi* that causes typhoid, *Mycobacterium tuberculosis* that causes TB, etc.
- **Clinical Chemistry** – This entails analysis of body fluids for detection of abnormalities, promote health and prevent diseases.
- **Haematology** – It involves study

of formation, function, composition and diseases that affect blood.

- **Histopathology & Cytology** – The section is involved with the study of anatomy and physiology of normal and abnormal body tissues. Its major function is diagnosis of cancer e.g. cancer of the cervix, breast cancer etc.
- **Blood transfusion science** – This is the section that deals with the science of transfer of blood and blood products from one person to another.
- **Parasitology & Entomology** – This section encompasses the study of organisms that take abode temporally or permanently on or within another organism for the purpose of procuring food and shelter.
- **Virology** – It deals with the study of viruses e.g. HIV, Ebola virus, Hepatitis B virus etc.
- **Immunology** – This section deals with the study of immune system and different antigenic responses.

Diploma programme

Duration : three years

Minimum entry requirements:

1. Mean grade C in KCSE or its equivalent
2. Mandatory subjects
 - C plain in either English or Kiswahili
 - C plain in either Biology or Biological Science
 - C plain in either Chemistry or Physical chemistry

3. Additional subjects.
 - C plain in either Mathematics or Physics

Higher diploma programme

Duration: one year

Minimum entry requirements:

1. Basic diploma from a recognised institution.
2. Three years working experience
3. Current registration with Kenya Medical Laboratory Technicians and Technologists Board

Areas of specialization for higher diploma

- Bacteriology and Mycology
- Clinical Chemistry
- Haematology
- Histopathology & Cytology
- Blood transfusion science
- Parasitology & Entomology
- Virology



Teaching/learning approaches

Students are taken through theory and practical work before they are attached for practical experiences in various government and private hospitals, industries, and research institutions.

Career prospects

Upon completion, graduates seek employment in the following fields:

- Medical laboratories of government, mission and private hospitals
- Medical research institutions
- College/university teaching laboratories.
- Non-governmental organisations.
- Forensic laboratories.

- Food processing industries
- Company laboratories.
- Agricultural farm/Horticultural farm laboratories.
- Quality assurance laboratories.

Career progression in Medical Laboratory Sciences

Diploma in Med. Lab. Sciences	Bachelor of Science Med. Lab. Sciences	Master of Science Med. Lab. Sciences	Doctor of Philosophy in Med. Lab. Sciences
Diploma in Med. Lab. Sciences	Higher Diploma in Med. Lab. Sciences	Master of Science Med. Lab. Sciences	Doctor of Philosophy in Med. Lab. Sciences



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