

| | | | | | | | |
|----------------------------------|----------------------------------|---|----|---|----|------------|-------------|
| MLSC 407 | Histopathology & Cytology | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 408 | Lab Information Management & Law | 3 | 45 | - | 30 | 3 | 75 |
| MLSC 409 | Medical Parasitology | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 411 | Maintenance | 3 | 45 | 1 | 30 | 4 | 75 |
| Total Credits/Hours | | | | | | 19 | 375 |
| Grand Total Credits/Hours | | | | | | 150 | 3030 |

2.10.2 Summary of total credit hours

| | Total Hours | Total Credits |
|------------------------------|-------------|---------------|
| Theory and Practicals | 3030 | 150 |

EXAMINATION SCHEME

YEAR ONE

1ST TRIMESTER

| Subject Code | Course Title | Hours | |
|--------------|----------------------|---------|-----------|
| | | Written | Practical |
| COMM III | Communication Skills | 1X3 | - |
| HSCI 105 | Human Anatomy I | 1X3 | 1X3 |
| MLSC 101 | Organic chemistry | 1X3 | 1X3 |
| COMP 100 | Computer Application | 1X3 | |
| HSCI 103 | Nutrition & Health | 1X3 | |

Total Credit Hours

2ND TRIMESTER

| | | | |
|----------|-----------------------------|-----|-----|
| HSCI 106 | Human Anatomy II | 1X3 | 1X3 |
| HSCI 108 | Human Physiology I | 1X3 | 1X3 |
| MLSC 222 | Biochemistry | 1X3 | 1X3 |
| PHYS 101 | Electricity and Magnetism I | 1X3 | 1X3 |
| MLSC 103 | First Aid | 1X3 | - |

Total credits/Hours

3RD TRIMESTER

| | | | |
|----------|---------------------|-----|-----|
| HSCI 109 | Human Physiology II | 1X3 | 1X3 |
| THEO III | Christian Beliefs | 1X3 | - |
| HSCI 225 | HIV/AIDS | 1X3 | - |
| BUSS 221 | Entrepreneurship | 1X3 | - |
| MATH 130 | Basic Statistics | 1X3 | |

Total Credits/Hours

YEAR TWO

1ST TRIMESTER

| Subject Code | Course Title | Hours | |
|--------------|--------------|---------|-----------|
| | | Written | Practical |
| MLSC 201 | Histology | 1X3 | 1X3 |

| | | | |
|----------|------------------------|-----|-----|
| MLSC 305 | Clinical Chemistry | 1X3 | 1X3 |
| SOST 201 | Technology and Society | 1X3 | - |
| MLSC 333 | Pharmacology | 1X3 | 1X3 |
| ENVI 201 | Environmental Science | 1X3 | 1X3 |

Total Credit/Hours

2ND TRIMESTER

| | | | |
|----------|------------------------------|-----|-----|
| MLSC 300 | Immunology I | 1X3 | 1X3 |
| MLSC 204 | Cellular & Molecular Biology | 1X3 | 1X3 |
| MLSC 205 | Bio-Instrumentation | 1X3 | 1X3 |
| MLSC 306 | Medical Bacteriology | 1X3 | 1X3 |

Total Credit/Hours

3RD TRIMESTER

| | | | |
|----------|---------------------------|-----|-----|
| MLSC 301 | Immunology II | 1X3 | 1X3 |
| MLSC 302 | Health Research & Ethics | 1X3 | - |
| MLSC 303 | Laboratory animal science | 1X3 | 1X3 |
| MLSC 304 | Community Health | 1X3 | - |
| MLSC 305 | Clinical Chemistry II | 1X3 | 1X3 |

Total Credit/Hours

YEAR THREE

1ST TRIMESTER

| Subject Code | Course Title | Hours | |
|--------------|---------------------|------------|------------|
| | | Written | Practical |
| MLSC 410 | Hospital Attachment | Assessment | Assessment |
| | - | | |

Total Credits/Hours

2ND TRIMESTER

| | | | |
|----------|--------------------------|-----|----------------|
| MLSC 400 | Haematology | 1X3 | 1x3 |
| MLSC 401 | Blood transfusion | 1X3 | 1X3 |
| MLSC 402 | Research Project | 1X3 | Project |
| MLSC 403 | Medical Mycology | 1X3 | 1X3 |
| MLSC 404 | Radiology & Med. Imaging | 1X3 | - |
| MLSC 405 | Forensic Sciences | 1X3 | 1X3 |

Total Credits/Hours

3RD TRIMESTER

| | | | |
|-----------|----------------------------------|-----|-----|
| MLSC 406 | Medical Virology | 1X3 | 1X3 |
| MLSC 407 | Histopathology & Cytology | 1X3 | 1X3 |
| MLSC 408 | Lab Information Management & Law | 1X3 | |
| MLSC 409 | Medical Parasitology | 1X3 | 1X3 |
| MLSCI 411 | Maintenance | 1X3 | 1X3 |

Total Credits/Hours

Main Campus, Meru

P.O. Box 267-60200, Meru, Kenya
Tel: : 020 - 2118423/4/5/6/7 ,
0724 - 256 162, 0734 - 310 655
info@kemu.ac.ke Fax: 064 - 30162

Nairobi Campus: KeMU Hub

P.O. Box 45240-00100, Nairobi, Kenya
Tel: 020 - 2247987/2248172,
0725 - 751 878, 0735 - 701 311
nairobicampus@kemu.ac.ke
Fax: 020 - 248160

Nakuru Campus: Mache Plaza

P.O. Box 3654 - 20100, Nakuru, Kenya
Tel: 051-2214456 Fax: 2215314
info@kemu.ac.ke

Mombasa Campus:

P.O. Box 89983 - 80100,
Mombasa, Kenya Tel: 041 - 2495945/8
0715 120 282, 0731 190 932
info@kemu.ac.ke

Nyeri Campus:

Rware Building
P.O. Box 2285 - 10140, Nyeri , Kenya
Tel: 061- 2032904, 020 - 2118441,
0700-739 988, 0733 601 884
Fax: 061 - 2034100

Kisii Centre:

Royal Towers, 4th Floor
Tel: 0708 968 346
Email: info@kemu.ac.ke

Meru Town Centre:

P.O. Box 267 - 60200, Meru, Kenya
Tel: 064 - 31814 , 0718 767 060
info@kemu.ac.ke

Maua Centre:

Maua Methodist Hospital Sacco Building
P.O. Box 267 - 60200, Meru, Kenya
Tel: 020 - 2118439, info@kemu.ac.ke

Marimanti Centre:

Methodist Rural Training Centre
P.O. Box 22 - 60215, Marimanti, Kenya
Tel: : 020 - 2118423/4/5/6/7,
0724 256 162, 0734 -310 655
Fax: 064 -30162, info@kemu.ac.ke

KeMU
DIGITAL CAMPUS



KeMU

Kenya Methodist University

The future is here



BSc | **Medical Laboratory Sciences**

Philosophy of the Programme

Medical Laboratory Scientist from Kenya Methodist University will be an individual who will value human life and will use the Laboratory medicine knowledge to maintain it. They will be part of the health care teams, whose members work collectively to find solutions to the health of individuals. They will be expected to discharge their duties with diligence and in fear of God, and with a sense of commitment to the healing ministry of our Lord Jesus Christ.

Goal of the Programme

The goal of the Bachelor of Science in Medical Laboratory Sciences programme is to contribute to the improvement of population health through imparting medical laboratory knowledge and appropriate competencies for improving the quality of provision of medical laboratory services for effective treatment and management of diseases.

Expected Learning Outcomes:

Upon completion of the programme, graduates will be able to:

1. Perform Laboratory examinations
2. Work harmoniously, ethically and professionally with physicians, colleagues and patients, and exemplify Christian love and service values.
3. Develop administrative skills in laboratory supervision and management
4. Develop competencies and skills for teaching Laboratory procedures to their colleagues

Mode of Delivery of the Programme

The programme will run on fulltime, part-time and e-learning/ distance learning modes.

Admission Requirements

The programme shall admit direct and mature entry candidates. A candidate wishing to be considered for the degree of Bachelor of Science in Medical Laboratory Sciences in the direct entry category shall have the following requirements:

DIRECT INTAKE

- i) Kenya Certificate of Secondary Education (KCSE) or its equivalent: Aggregate of C+ (plus).

Cluster A: Subjects

ii) C+ (plus) in each of the following required subjects: Mathematics/Physics, English/Kiswahili, Chemistry, and Biology.

Cluster B: Subjects

iii) C+ (plus) in each of the following required subjects: English/Kiswahili, Physical Sciences, Mathematics, and Biological Sciences.

OR

i) Be a holder of KACE with a minimum of one principal pass in Biology and subsidiary pass in Chemistry, Maths/Physics.

OR

ii) Be a holder of any other qualification accepted by the University Senate as equivalent to any of the above.

MATURE ENTRY REQUIREMENTS

i) A candidate wishing to be considered for a degree of Bachelor of Science in Medical Laboratory Sciences shall have the following requirements:

ii) A minimum aggregate of **C (Plain)** or above at KCSE or their equivalents

OR

iii) Be a holder of Division II in 'O' levels with credit passes in:

Alternative A: English/Kiswahili
Biology
Chemistry and
Maths/Physics

Alternative B: English/Kiswahili
Biological Sciences
Maths/Physical Sciences
Geography

In Addition to the minimum entry requirements, the candidate MUST have:

i) A Diploma in Medical Laboratory Sciences with at least a credit pass from a recognized institution, and registered by the Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB) or an equivalent board for foreign students.

OR

ii) Any other qualification that is considered equivalent to any of the above, subject to the University Senate's approval.

Duration and structure of the programme

A. Duration

The duration of the Bachelor of Science in Medical Laboratory Sciences shall extend over a period not less than three academic years for direct entry students, two years for distance learning mode and part time in-service/upgrading unless the Senate, on the recommendation of the School Board, approves the exemption.

B. Structure

The programme is organized in trimester system. Each trimester is comprised of 15 weeks, two of which are examination weeks.

The Programme is structured using the credit hour system as follows:

One (1) credit hour = 15 hours of lecture per trimester

Or 30 hours of laboratory, tutorial, demonstration, or practical sessions

Or 45 hours clinical practice.

Courses/Units Offered for the Program

YEAR ONE

1ST TRIMESTER

| Subject Code | Course Title | Hours | | | | | |
|---------------------------|----------------------|-------|----|--------|----|-----------|------------|
| | | Lec. | | Pract. | | Totals | |
| | | CR | HR | CR | HR | CR | HR |
| COMM III | Communication Skills | 3 | 45 | - | - | 3 | 45 |
| HSCI 105 | Human Anatomy I | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 101 | Organic chemistry | 3 | 45 | 1 | 30 | 4 | 75 |
| COMP 100 | Computer Application | 3 | 45 | - | - | 3 | 45 |
| HSCI 103 | Nutrition & Health | 3 | 45 | - | - | 3 | 45 |
| Total Credit Hours | | | | | | 17 | 285 |

2ND TRIMESTER

| | | | | | | | |
|----------------------------|-----------------------------|---|----|---|----|-----------|------------|
| HSCI 106 | Human Anatomy II | 3 | 45 | 1 | 30 | 4 | 75 |
| HSCI 108 | Human Physiology I | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 222 | Biochemistry | 3 | 45 | 1 | 30 | 4 | 75 |
| PHYS 101 | Electricity and Magnetism I | 3 | 45 | - | - | 3 | 45 |
| MLSC 103 | First Aid | 3 | 45 | - | - | 3 | 45 |
| Total credits/Hours | | | | | | 18 | 315 |

3RD TRIMESTER

| | | | | | | | |
|----------------------------|---------------------|---|----|---|----|-----------|------------|
| HSCI 109 | Human Physiology II | 3 | 45 | 1 | 30 | 4 | 75 |
| THEO III | Christian Beliefs | 3 | 45 | - | - | 3 | 45 |
| HSCI 225 | HIV/AIDS | 3 | 45 | - | - | 3 | 45 |
| BUSS 221 | Entrepreneurship | 3 | 45 | - | - | 3 | 45 |
| MATH 130 | Basic Statistics | 3 | 45 | - | - | 3 | 45 |
| Total Credits/Hours | | | | | | 16 | 255 |

YEAR TWO

1ST TRIMESTER

| | | | | | | | |
|---------------------------|------------------------------|---|----|---|----|-----------|------------|
| MLSC 201 | Histology | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 204 | Cellular & Molecular Biology | 3 | 45 | 1 | 30 | 4 | 75 |
| SOST 136 | Introduction to Psychology | 3 | 45 | - | - | 3 | 45 |
| ENVI 201 | Environmental Science | 3 | 45 | - | - | 3 | 45 |
| Total Credit/Hours | | | | | | 14 | 240 |

2ND TRIMESTER

| | | | | | | | |
|---------------------------|--------------------------|---|----|---|----|-----------|------------|
| MLSC 205 | Bio-Instrumentation | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 300 | Immunology I | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 302 | Health Research & Ethics | 3 | 45 | - | - | 3 | 45 |
| MLSC 305 | Clinical Chemistry 1 | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 307 | Clinical Chemistry II | 3 | 45 | 1 | 30 | 4 | 45 |
| Total Credit/Hours | | | | | | 19 | 315 |

3RD TRIMESTER

| | | | | | | | |
|---------------------------|---------------------------------|---|----|---|----|-----------|------------|
| MLSC 301 | Immunology II | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 306 | Medical Bacteriology | 3 | 45 | 1 | 30 | 4 | 45 |
| MLSC 303 | Lab Animal Science | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 304 | Community Health & Epidemiology | 3 | 45 | - | - | 3 | 45 |
| MLSC 333 | Pharmacology | 3 | 45 | 1 | 30 | 4 | 45 |
| Total Credit/Hours | | | | | | 19 | 315 |

THREE YEAR

1ST TRIMESTER

| Subject Code | Course Title | Hours | | | | | |
|----------------------------|---------------------|-------|----|--------|----|----------|------------|
| | | Lec. | | Pract. | | Totals | |
| | | CR | HR | CR | HR | CR | HR |
| MLSC 410 | Hospital Attachment | - | - | 6 | 30 | 6 | 180 |
| Total Credits/Hours | | | | | | 6 | 180 |

2ND TRIMESTER

| | | | | | | | |
|----------------------------|--------------------------|---|----|---|----|-----------|------------|
| MLSC 400 | Haematology | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 401 | Blood transfusion | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 402 | Research Project | - | - | 4 | 30 | 4 | 120 |
| MLSC 403 | Medical Mycology | 3 | 45 | 1 | 30 | 4 | 75 |
| MLSC 404 | Radiology & Med. Imaging | 3 | 45 | - | - | 3 | 45 |
| MLSC 405 | Forensic Sciences | 3 | 45 | - | - | 3 | 45 |
| Total Credits/Hours | | | | | | 22 | 435 |

3RD TRIMESTER

| Subject Code | Course Title | Hours | | | | | |
|--------------|------------------|-------|----|--------|----|--------|----|
| | | Lec. | | Pract. | | Totals | |
| | | CR | HR | CR | HR | CR | HR |
| MLSC 406 | Medical Virology | 3 | 45 | 1 | 30 | 4 | 75 |