

# v] COLLEGE OF HEALTH SCIENCES KENYATTA NATIONAL HOSPITAL CAMPUS

**Principal:** Prof. Fredrick N. Were, MBChB, MMed, (Nairobi), MD, FNIC, (Australia), PhD  
**Registrar/Secretary:** Musyoka, L.M., BSc, BA, (USIU-A), MBA, (Nairobi) (Ag.)

The College of Health Sciences is situated at Kenyatta National Hospital Campus. It was established in 1985 through an Act of Parliament. At its inception in July 3, 1967 the College had only one faculty namely, the Faculty of Medicine. However, over the years it has expanded and now it has five Schools, three Institutes and two centres as listed here below:

- i) School of Dental Sciences
- ii) School of Pharmacy
- iii) School of Nursing Sciences
- iv) School of Public Health
- v) East African Kidney Institute
- vi) University of Nairobi Institute of Tropical and Infectious Diseases (UNITID)
- vii) Centre for HIV/AIDS Prevention and Research (CHIVPR)
- viii) Kenya AIDS Vaccine Initiative Institute of Clinical Research
- ix) Africa Coordinating Centre for Abandonment of Female Genital Mutilation (ACCAF)
- x) School of Medicine (including Pre-clinical Departments based in Chiromo Campus)



The College is committed to training of high calibre healthcare professionals and innovative researchers in emerging health challenges and its professionals are at the forefront of the national health policy formulation.

As a result of this remarkable contribution, more than 50% of healthcare professionals and researchers in the health sciences in Kenya have been trained at the College. This has earned the College a reputation of a leading institution in training of high calibre healthcare professionals in the Eastern and Central African region.

The academic programmes offered at the College are highly competitive in the market and are relevant to the country's health needs. The College offers a wide range of undergraduate and postgraduate degree programmes leading to the award of diplomas and degrees at Bachelors, Masters, Doctor of Philosophy and Doctor of Medicine.

### CENTRE FOR HIV/AIDS PREVENTION AND RESEARCH

This Centre is engaged mainly in research activities in the area of HIV prevention, care and management as follows:

Research Activities in the Area of HIV Prevention, Care and Management

1. **Policy development and prevention and control** of HIV through health education in the work place – EPZs.

2. **“Widow Inheritance among the Luo: Developing Culturally Appropriate Interventions in the Context of Evolving Tradition”**. A project to design and implement an intervention to address widow inheritance as a risk behaviour for HIV transmission among the Luo – Siaya.
3. **“From Unmet Need to Unused Service”**. A project designed to explain the low utilization of prevention of maternal to child transmission (PMTCT) services in Kenya – Nairobi.
4. **“Secondary Prevention: Translation and Transfer of Evidence-based Interventions”**. A project to translate a **“prevention with positives”** counseling intervention for secondary HIV transmission risk reduction in HIV care setting in Kenya – Thika.
5. **“Studies of Kenya Female Sex Workers and their Male Partners: Life Course and Harm Reduction Approaches”**. A project to examine the social context of sex work and identify opportunities for intervention – Kibera.
6. Empowering University of Nairobi researchers by providing seed grants to fund proposals through competitive applications.

Details on specific admission requirements of the school, credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the College

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# SCHOOL OF DENTAL SCIENCES

**Dean of School:** Dr. Mutave, J.R., BDS (Nairobi), MRes (Health Geography), St. Andrews, MSc (DPH), (UWC), PhD, (Nairobi)  
**Senior Assistant Registrar:** Jacob M. Gichunge, BA Anthropology, (Nairobi), MA Hosp Mgt, (Leeds, UK), Strategic Leadership & Development, (KSG-Nairobi)

The School of Dental Sciences was established in 1974 as a Department in the Faculty of Medicine. This followed a presidential decree for dental education in Kenya in 1974. It was initially housed in the Department of Human Anatomy and later relocated to Kenyatta National Hospital Dental Unit, Kabete. The department moved to the present site along Argwings Kodhek Road in 1977.

In 1995, the Faculty of Dental Sciences was established comprising of four departments namely department of Conservative and Prosthetic Dentistry; Oral and Maxillofacial Surgery-Oral Pathology and Oral Medicine; Periodontology and Community Dentistry; and Paediatric Dentistry/Orthodontics. Following restructuring of the faculties and creation of new schools in 2005, the faculty changed its name to School of Dental Sciences.

## GENERAL INFORMATION

The first year students of BDS take their courses at Chiromo Campus. The 2<sup>nd</sup> year students take their courses at Kenyatta National Hospital, mainly with a few hours at the School of Dental Sciences. The 3<sup>rd</sup> and 4<sup>th</sup> year students are based at the School of Dental Sciences.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF BACHELOR OF DENTAL SURGERY

### 1.0 INTRODUCTION

The School of Dental Sciences was established in 1974 to train Dental Practitioners for the country and meet development needs through the provision of oral health services to the population. This the School has successfully done over the years by training dentists through the Bachelor of Dental Surgery degree program. This program was last reviewed in 1998. The major change as a result of this review was the adoption of the current curriculum which runs for a duration of four academic years of 44 weeks each.

The present review has been necessitated by the need to keep abreast with the advancement in dental knowledge and the demand for leadership skills. This review has improved the course content by incorporating new materials like leadership and management, information technology and also by placing more emphasis on the clinical and/or practical examination in the evaluation process. The revised curriculum will be offered over a 5 year period which will serve to decongest the academic year and thus allow more time for research activities and community outreach for both students and academic members of staff. Graduates are expected to be competent to meet the oral health needs of the population, be self motivated and ethical in their approach to patient management.

### 2.0 COURSE OBJECTIVES

- 2.1 To equip the student with knowledge, skills and competencies in patient management.
- 2.2 To equip the student with knowledge, skills and critical thinking so as to enable them conduct ethical research.
- 2.3 To instill in the student integrity and professionalism in the management of patients and interaction with professional peers.

### 3.0 ENTRY REQUIREMENTS

- 3.1 Candidates for admission must satisfy the general University of Nairobi admission criteria of a mean grade C+ in Kenya Certificate of Secondary Education (K.C.S.E). A minimum C+ Grade pass will be mandatory in each of the cluster subjects.
- 3.2 The cluster subjects for Bachelor of Dental Surgery in K.C.S.E are as follows:
  - a) Biology.
  - b) Chemistry.
  - c) Physics or Mathematics.
  - d) English or Kiswahili. or
- 3.3 In addition to (3.2) above, eligibility for consideration for admission into the Module II Degree Program in the School of Dental Sciences shall be governed by the following admission requirements, outlined under each catchment category, or

**3.4** Advanced level holders should have at least two principal level passes and one subsidiary in Kenya Advanced Certificate of Education (KACE), Grade 5 and above in International Baccalaureate (IB), three principal level passes in GCE or equivalent level of education in the following subjects:-

- |               |                         |
|---------------|-------------------------|
| a) Biology.   | c) Physics/Mathematics. |
| b) Chemistry. | d) General paper. or    |

**3.5** Kenya Certificate of Education(KCE) and Kenya Certificate of Secondary Education (KCSE) with a minimum 'O' level division II Pass or C+ mean grade in KCSE in addition to three year diploma from a Medical Training Institution recognized by the University of Nairobi Senate in either of the following disciplines:

- |  |                           |
|--|---------------------------|
| a) Dental Technology,  | f) Laboratory Technology, |
| b) Dental Surgery Assistant,                                 | g) Radiography,           |
| c) Dental Hygiene,   | h) Pharmaceutical         |
| d) Community Oral Health,                                    | i) Clinical Medicine,     |
| e) Technology, Nursing, or any other equivalent disciplines. |                           |

**3.6** In addition applicants shall be expected to be working in the relevant field of their training at the time of application, or

**3.7** Holders of Degrees in any of the Science subjects from the university of Nairobi or equivalent degrees from institutions recognized by Senate of the University of Nairobi.

**3.8** International students from non-English speaking countries shall provide evidence of competence in English language by producing test of English as a Foreign Language (TOEFL) certificate or its equivalent.

## POSTGRADUATE TRAINING

### 1.0 POSTGRADUATE REMEDIAL TRAINING

This course conducted at the School of Dental Sciences, University Dental Hospital (UDH) is designed for graduates trained outside Kenya who may wish to prepare themselves to sit for the Kenya Medical Practitioners and Dentists Board Examinations and also those practitioners wishing to gain more competence in their specialized areas of dentistry. The courses are designed to provide theoretical knowledge and practical skills for individuals who are holders of Bachelor of Dental Surgery Degree from a recognized University.

## REGULATIONS FOR THE DEGREE OF MASTER OF DENTAL SURGERY (MDS.) IN PAEDIATRIC DENTISTRY

### 1.0 INTRODUCTION

#### Background

Paediatric Dentistry programme provides for the study of the child growth and development, oral and systemic diseases, and facilitates access to the latest operative techniques required to provide primary and comprehensive preventive and therapeutic oral health care, while equipping the learner with advanced clinical and research knowledge and skills to meet these demands.

### 2.0. ENTRY REQUIREMENTS

#### Minimum Entry Requirements

The common regulations governing the admission for the Master's Degree at the University of Nairobi shall apply to the Master of Dental Surgery in Paediatric Dentistry. Applicants for admission into the programme shall fulfill the following conditions:

- i) be holders of Bachelor of Dental Surgery (BDS) degree from the University of Nairobi, or equivalent qualification from institution(s) recognized by the Senate of the University of Nairobi.
- ii) the degree must be registerable by the Kenya Medical Practitioners and Dentists Board (MP&DB).
- iii) must possess at least 2 years post qualification experience in clinical dentistry of which one year shall constitute internship training and one year at a Dental hospital/clinic recognized by the Medical Practitioners and Dentists Board (MP&D Board).
- iv) Must provide evidence of professional indemnity cover and commit to renew annually during the period of training.
- v) Must present a certificate of proficiency in English, where the language of instruction during the applicant's undergraduate training was not English.
- vi) Must pass a mandatory pre-admission interview.

### 3.0 COURSES OFFERED FOR THE PROGRAMME

#### List of Courses

<b>YEAR I</b>	
<b>Comprise of coursework, clinical/practical work, preparation of a research protocol for a Dissertation and Part I examinations.</b>	
Code	Course Title
VPE 621	Oral and Molecular Biology
VPE 622	Research Methodology and Biostatistics
VPE 623	Paediatric Oral Pathology and Oral Medicine
VPE 624	Preventive and Community Dentistry
VPE 625	Behavioural Sciences
VPE 626	Paediatric Dental Clinics and Hospital Dentistry I
VPE 627	Paediatric Restorative Dentistry I
VPE 830	Dissertation
<b>YEAR II:</b>	
<b>Comprise of coursework, clinical work, research for dissertation and Part II examinations.</b>	
VPE 721	Paediatric Restorative Dentistry II
VPE 722	Orthodontics I
VPE 723	Paediatric Oral and Maxillofacial Surgery I
VPE 724	Paediatric Periodontology and Oral Immunology
VPE 725	Science of Applied Human Nutrition
VPE 726	Paediatric Dental Clinics and Hospital Dentistry II
VPC 702	Leadership and Management
VPE 830	Dissertation II
<b>YEAR III:</b>	
<b>Comprise of coursework, clinical work, Part III examinations, and defense of the Dissertation.</b>	
VPE 821	Paediatric Restorative Dentistry III
VPE 822	Orthodontics II
VPE 823	Paediatric Oral and Maxillofacial Surgery II
VPE 824	Paediatric Dental clinics and Hospital Dentistry III
VPE 830	Dissertation III

### DOCTOR OF PHILOSOPHY IN PAEDIATRIC DENTISTRY

The common regulations for the Degree of Doctor of Philosophy in all Schools shall apply.

### REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF DENTAL SURGERY IN ORAL AND MAXILLOFACIAL SURGERY

#### 1.0: INTRODUCTION

The Department of Oral and Maxillofacial surgery, School of Dental is committed to providing a postgraduate specialist training program in Oral and Maxillofacial Surgery (OMFS) which is of an international standard and produces specialist practitioners with a high level of knowledge and advanced clinical skills and attitudes in the specialty in order to provide the best evidence-based patient care. Since 2011 the department has strived to fulfill this commitment with significant success. It has produced a total of 20 specialists who are now serving in the public and private health institutions within the country and the region. However, despite this success the department feels that the program is due for review and up-scaling in order to remain relevant.

The University of Nairobi quality management system requires curriculum review every five years. Therefore, after ten years this review was made to fulfill that requirement. In addition the SWOT revealed the need to make some changes to the curriculum in order to address stakeholder concerns. The proposed changes have been necessitated by the wide scope of OMFS, advances in surgical technology and more demanding patient expectations. The trainee needs to have grasp a large body of knowledge, master the use advanced equipments, develop fine manual skills and deliver high quality care to a discerning, well-informed and critical patient. The training needs for such a specialist cannot be realized within a four-year curriculum such as we currently have. Different countries and institutions have approached the problem in different ways. Some countries, such as the European union, the United States, and Canada require double qualifications in medicine and dentistry as a prerequisite for a four-year training in Oral and maxillofacial surgery. In other countries, like South Africa the training of oral and Maxillofacial Surgery take either five years for a single qualification (e.g. Medical university of South Africa - MEDUNSA) or seven years with double qualification (e.g. University of Pretoria). Thus the training of Oral and Maxillofacial Surgeons vary between 5 and 10 years. This revised curriculum seeks to strike a balance between these extremes. It intensifies and expands surgical experience with minimal extension of the course duration.

## 2.0 COURSE OBJECTIVES

The broad objectives of the training programme are to ensure that all candidates:

- a) Are highly competent practitioners in OMFS
- b) Have the requisite knowledge, skills and professional attitudes for successful independent practice and
- c) Have the necessary attitudes and attributes to strive for continual review and improvement of their practice.

These attributes are essential to providing the highest possible quality of service to meet the relevant healthcare needs of the communities they serve

## 3.0: ENTRY REQUIREMENTS

- 3.1 The common regulations for the Masters Degrees at the University of Nairobi shall apply.
- 3.2 Candidates shall be holders of a Bachelor of Dental Surgery Degree of the University of Nairobi or an equivalent qualification from a recognized institution approved by the University of Nairobi Senate. The degree must be registerable by the Kenya Medical Practitioners and Dentists' Board.
- 3.3 Candidates shall have at least one year of working experience in clinical dental surgery after internship training.
- 3.4 The candidate must be registered by the Kenya Medical Practitioners and Dentists Board.
- 3.5 The candidate must provide proof of proficiency in the English language.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF DENTAL SURGERY IN PERIODONTOLOGY (MDS PERIODONTOLOGY)

### 1.0 INTRODUCTION

Periodontology is the speciality in dentistry which deals with the diseases of the supporting structures of the teeth. These diseases comprise a group of inflammatory conditions of the supporting tissues of the teeth and are caused by bacterial biofilm. Periodontal diseases are thus infectious in nature and are affected and modified by environmental, physical, social and host stresses. Periodontal disease is the most common oral disease affecting mankind.

Graduates of this programme shall be able to treat all forms of periodontal disease on a biologically rational basis. It is also expected that at the end of the training, the

graduates shall have attained adequate knowledge to become team leaders and managers in their work places.

## 2.0 COURSE OBJECTIVES:-

- i) Train specialists who will be competent in all theoretical and practical skills pertinent to the speciality.
- ii) Equip students with current knowledge/skills from the biomedical sciences and relate the information to diagnosing, treating and maintaining patients with advanced periodontal diseases.
- iii) Equip students with skills to conduct literature searches and critically evaluate published data and thus contribute to the available research knowledge in the field of dentistry by carrying out and publishing an original research project.
- iv) Impart enhanced practical skills with improved self-appraisal and awareness.
- v) Enhance the multidisciplinary approach towards the management of periodontal cases.
- vi) Understand the place of oral health care in the wider medical, psychological and social context.

## 3.0 ENTRY REQUIREMENTS

The common regulations for the Master's Degree of the University of Nairobi shall apply.

- 3.1 Candidates shall be holders of a Bachelor of Dental Surgery Degree of the University of Nairobi, or an equivalent qualification from a recognized institution approved by the Senate of University of Nairobi. The degree must be registrable by the Medical Practitioners and Dentists Board.
- 3.2 Candidates shall have at least two years working experience in clinical dental surgery after undergraduate training inclusive of the internship training.
- 3.3 Candidates shall be expected to sit and pass an entry examination administered by the Department.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF DENTAL SURGERY IN PROSTHODONTICS (MDS PROSTHODONTICS)

### 1.0 INTRODUCTION

The discipline of Prosthodontics deals with the provision and maintenance of prostheses and/or restoration of teeth to function, aesthetic harmony and comfort utilizing a variety of techniques both direct and indirect while using the appropriate

dental materials. The discipline also encompasses patients' evaluation, diagnosis and treatment planning which includes prevention and disease control as well as the requirement of long-term maintenance of restored dentition. In provision of dental prostheses, they are fixed to the remaining teeth or tooth analog such as implant or removable partial or complete dentures supported by teeth and soft tissues. These prostheses replace missing teeth and associated hard tissue. They also replace soft tissue defects resulting from pathology, trauma or congenital defects. Dental caries and periodontal diseases are currently the most prevalent oral diseases which manifest as partial or total loss of teeth and their supporting periodontal structures requiring one or more forms of Prosthodontic management ranging from simple to complex restorations and/or prostheses.

The purpose therefore of MDS Prosthodontic shall be to produce high caliber graduates who are capable of maintaining the practice of Prosthodontics in scientific research and in clinical practice.

## 2.0 COURSE OBJECTIVES

- i) Shall provide the MDS Prosthodontics candidates with comprehensive knowledge and skills in the practice of Prosthodontics.
- ii) Provide sound experience in management of patients requiring oral rehabilitation with restorations, fixed and/or removable prostheses.
- iii) Enhance the fortification of the interdisciplinary management of Prosthodontics and other dental disciplines.
- iv) Train the MDS Prosthodontics graduates in research skills thus enabling them to undertake independent and original research project.

## 3.0 ENTRY REQUIREMENTS

- 2.1 The admission regulations of the Masters Degree of the University of Nairobi shall apply.
- 2.2 The candidates shall be holders of the Bachelor of Dental Surgery Degree from the University of Nairobi or its equivalent from an institution approved by the University of Nairobi Senate.
- 2.3 The applicants shall be registrable by the Kenya Medical Practitioners' and Dentists Board.
- 2.4 The candidates shall have at least two years working experience in clinical dentistry one of which should have been post internship.

## DEPARTMENT OF PAEDIATRIC DENTISTRY AND ORTHODONTICS

### INTRODUCTION

The department offers a wide range of course units in Paediatric Dentistry at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements.

#### STAFF LIST

##### Chairman of Department

Ngatia, E.M., BDS, MSc, (Nairobi)

##### Associate Professor

Masiga, M.A. , BDS, (Nairobi), MSc, (London)

Kemoli, A.M. , BDS, (Nairobi), DGDP RCS (Eng), MSc, PhD, (Amsterdam)

##### Senior Lecturer

Ngatia, E., BDS (Nairobi), MSC (Nairobi)

##### Lecturer

Ngesa, J.L. , BDS, (Nairobi), MchD, (Western Cape)

Owino, R.O. , BDS, (Nairobi), MDS, (Nairobi)

Muasya, M.K. , BDS, (Nairobi), MDS, (Nairobi)

Psiwa, N., BDS, (Nairobi), MSc, (Western Cape)

## DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY/ ORAL PATHOLOGY AND ORAL MEDICINE

### INTRODUCTION

The department offers a wide range of course units in Oral and Maxillofacial Surgery/ Oral Pathology and Oral Medicine at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements.

#### STAFF LIST

##### Chairman of Department:

Odhiambo, W.A., BDS, MDS-OMFS, (Nairobi), FRIMS, (PRIME-K)

##### Professor:

Guthua, S.W. , BDS, (Nairobi), MMedSci, DOMS, (MGH-Harvard), FIAOMS, FCS, FICD  
Chindia, M.J. , BDS, (Nairobi), MSc, (London), FFDRCS, (Ireland)

##### Associate Professor

Onyango, J.F. , BDS, (Nairobi), MSc, (London), FDRSRCS, (Eng)

##### Senior Lecturer

Odhiambo, W.A., BDS, MDS, (Nairobi)  
Akama, M.K., BDS, MDS, (Nairobi)  
Osundwa, T.M., BDS, MDS, (Nairobi)  
Ochola, T.J.O., BDS, (Nairobi), MSc, Dip RCR, (London), MEd, (SA)  
Awange, D.O., BDS, (Nairobi), MSc, (London), Dip RCR, Dip Coll, MEd, (SA)  
Wakoli, K., BDS, (Nairobi), MSc, (London)  
Kyale, K.B., BDS, (Nairobi), MPhil, (Manchester)  
Dimba, E.O., BDS, (Nairobi), PhD, (Sweden)  
Wakoli, K.A., BDS, (Nairobi), MSc, (London)  
Awange D.O., BDS, (Nairobi), MSc, (Newcastle)  
Ochola, T.J.O., BDS, (Nairobi), MSc, Dip RCR, (London), MEd, (SA)

##### Lecturer,

Njiru, A.W., BDS, (Nairobi), MDS ,(Leeds)  
Kihara, E., BDS, MSc, (Nairobi), PgDip Maxillofacial Radiology, (SA)

## DEPARTMENT OF PERIODONTOLOGY AND COMMUNITY AND PREVENTIVE DENTISTRY

### INTRODUCTION

The department offers a wide range of course units in Periodontology/Community and Preventive Dentistry at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements.

#### STAFF LIST

##### Chairperson of Department:

Mua, B.N., BDS, MPH, PGD-STI, (Nairobi), MBA, (St. Pauls)

##### Associate Professors

Macigo, F.G., BDS, MPH, Post grad Dip (STI), (Nairobi)  
Gathece, L., BDS, MPH, PhD, (Nairobi)  
Wagaiyu, G., BDS, (Nairobi), MSc, (London), PhD, (Nairobi)

##### Senior Lecturers

Mutave, J.R., BDS, (Nairobi), Post grad Dip (Research), (Nairobi), MSc, (Ireland)  
Mua, B., BDS, MPH, (Nairobi)  
Matu, N.K., BDS, (Nairobi), MSc (Clin Dent), (S.A)

##### Lecturers

Mulli, K., BDS, (Nairobi), MSc, (UK), PhD, (Kings College)  
Wetende, A., BDS, MDS, (Nairobi)  
Wangari, W., BDS, MDS, (Nairobi)  
Alumera, H., BDS, MDS, (Nairobi)



## DEPARTMENT OF CONSERVATIVE AND PROSTHETIC DENTISTRY

### INTRODUCTION

The department offers a wide range of course units in Conservation and Prosthetic Dentistry at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements.

#### STAFF LIST

##### Chairman

Dienya, T.M., BDS, (Nairobi), MDS, Cert. in Implants, (Malaysia)

##### Senior Lecturer:

Dienya, T.M., BDS, (Nairobi), MDS, Cert. in Implants, (Malaysia)

Kisumbi, B.K., BDS, (Nairobi), MPhil, (Manchester-UK)

Maina, S.W., BDS, (Nairobi), MSc, (UCLA)

##### Lecturer:

Omondi, B.I., BDS, (Nairobi), MSc Clin. Dent., (London)

Otieno, F.O., BDS, (Nairobi), MSc, (Newcastle-UK)

Nyaga, J.M., BDS, MDS, (Nairobi)

Kassim, BA, BDS, MDS, (Nairobi)

Simila, H.O., BDS, (Nairobi), MSc, (London)

Osiro, A.O., BDS, (Nairobi), MSc, (London)

##### Tutorial Fellow:

Ogada, C., BDS, (Nairobi)

Moraa, A.R., BDS, MDS, (Nairobi)

Edalia, L., BDS, (Nairobi)

Mwirigi, K., BDS, (Nairobi)

Gichangi, C.N., BchD, (Pretoria)

Simiyu, B., BDS, (Nairobi)

Details on specific admission requirements of the school, credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the School.

Please contact:  
 Conservative and Prosthetic Dentistry  
 The Dean  
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# SCHOOL OF MEDICINE

**Dean of School:** Prof. Fredrick C.F. Otieno, MBChB, MMed, (Nairobi), FRCP (Edin)

**Associate Dean:** Prof. Edward K. Nguu, BSc, MSc, PhD, (Nairobi)

**Assistant Registrar:** D.G. Kiarie, BA, (Nairobi), PGDE, (KU), Dip Business, (KIM)

## BRIEF HISTORY OF THE SCHOOL

The School of Medicine was started on July 3, 1967 and was officially inaugurated on March 7, 1968. The Clinical Departments of the School are situated at Kenyatta National Hospital while the pre-clinical Departments are housed at the Chiromo Campus.

The School offers courses of study leading to the award of degrees of Bachelor of Medicine and Bachelor of Surgery, Bachelor of Science in Biochemistry, Bachelor of Science in Medical Laboratory Sciences and Technology, Master of Medicine, Master of Science, Fellowships, Doctor of Philosophy, Doctor of Medicine and Postgraduate Diplomas.

The School is currently made up of the Departments of Human Anatomy, Medical Physiology, Biochemistry, Community Health, Clinical Medicine and Therapeutics, Surgery, Paediatrics and Child Health, Obstetrics and Gynaecology, Human Pathology, Medical Microbiology, Psychiatry, Orthopaedic Surgery, Diagnostic Imaging and Radiation Medicine, and Ophthalmology.

## REVISED REGULATIONS AND SYLLABUS FOR THE DEGREE OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBCHB)

### 1.0 INTRODUCTION

The last curriculum review in the School of Medicine was in 1998 with the introduction of a 5 years 44 weeks academic system. The present revision of the curriculum has been informed by several interrelated factors. These include keeping abreast with advancing medical knowledge and information technology, harmonisation with other schools internationally and within the region. The curriculum also decongests the academic year allowing more time to staff for research activities. Finally curriculum facilitates accelerated intake into the profession. The course shall

be full time and extend over six academic years, of 204 weeks spread over 30 weeks for first and second years and 36 weeks each for third to sixth year of study totalling 8,160 hours.

This revised curriculum allows for early introduction to ICT, improved teaching methods and examination modification enhancing use of multiple choice questions, short essay questions and objective structured clinical examination. Emphasis is placed on the contribution of clinical or practical examination in the evaluation process. Graduates are expected to be self-motivated, disciplined and ethical doctors well versed with the holistic approach to health care management.

### 2.0 COURSE OBJECTIVES:

1. Impart knowledge, clinical skills and competencies necessary in a holistic medical practitioner.
2. Instil in the student the requisite discipline, professional ethics and etiquette necessary for safe medical practice.
3. Integrate clinical training with basic science from an early stage in the course.
4. Facilitate consolidation of knowledge, involvement in critical thinking and research to enable students practice evidence based medicine.

### 3.0 ENTRY REQUIREMENTS

- 3.1** Candidates must satisfy the general University of Nairobi admission criteria of a mean grade C+ in Kenya Certificate of Secondary Education (K.C.S.E). A minimum C+ Grade pass will be mandatory in each of the cluster subjects.

#### 3.1.1 Alternative A

Biology  
Chemistry  
Physics/Mathematics  
English/Kiswahili

#### 3.1.2 Alternative B

Biological Sciences  
Physical Sciences  
Mathematics  
English/Kiswahili

- 3.2 Advanced level holders should have at least a principal pass in Biology, Chemistry, and 1 subsidiary pass in either Mathematics or Physics.
- 3.3 Holders of Diploma in Medical Sciences should have a minimum of Division II or Mean Grade of C+ at K.C.S.E in the cluster subjects shown in 3.1.1 and 3.1.2. in addition to at least credit pass diploma from a recognized medical training institution.
- 3.4 Biological Science degree holders from University of Nairobi or Equivalent qualifications from a recognized University.
- 3.5 Holders of other qualifications deemed to be equivalent to 2.1 – 2.4 above.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCE AND TECHNOLOGY

### 1.0 INTRODUCTION

The School of Medicine, in line with the University of Nairobi's mission of producing highly skilled manpower, has developed this programme to continue producing graduates with intellectual and practical skills for local and international needs. Through this programme, the School intends to continue providing a major link in facilitating implementation of the One Health Concept in the management of Human, Animal and Ecosystem Health programmes in Kenya in tandem with global trends.

The Medical Laboratory Science and Technology course is designed to provide scientific basis for training skilled personnel in laboratory science based techniques. Graduates would perform laboratory tests to inform decision making in the area of biomedical laboratory sciences. Members of this profession will play pivotal role in

teaching research and health care. In this area they will act as catalysts for industrial development.

### 2.0 COURSE OBJECTIVES

- i) To build capacity in Medical Laboratory Science and Technology.
- ii) To provide opportunities for advancement in Medical Laboratory Science.

### 3.0 ENTRY REQUIREMENTS

The common admission requirements for the Bachelor of Science degrees at the School of Medicine, of The University of Nairobi shall apply. In addition, applicants with the following minimum qualifications shall be admissible:-

- 3.1 Kenya Certificate of Secondary Education (KCSE) with mean grade C+ or equivalent with at least a C+ in Biology, Chemistry and Mathematics or Physics or at least a grade B in Biological and Physical Science.
- 3.2 Kenya Certificate of Secondary Education (KCSE) mean grade C or equivalent plus a Diploma in Medical Laboratory Technology, Clinical Medicine, Dental Sciences, Nursing Science, Medical Imaging, Pharmaceutical Technology or related disciplines from institution(s) recognized by the University of Nairobi Senate. The diploma shall be of credit level and above.
- 3.3 Kenya Certificate of Education ['O' level] Division II or equivalent plus a diploma in the disciplines indicated in section 3.2 above. The diploma shall be of credit level and above.
- 3.4 Kenya Advanced Certificate of Education ['A' level] with two Principal passes or equivalent, one of which must be in Biology and the other in Chemistry, plus a subsidiary pass in Physics or Mathematics.

## DEPARTMENT OF BIOCHEMISTRY

### REGULATIONS AND SYLLABUS FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOCHEMISTRY

#### 1.0 INTRODUCTION

This programme is designed for students who intend to pursue careers in biomedical research, quality assurance in food and beverage industries, academia, pharmaceutical industry, nutritional counseling and self-employment

in biochemical/biotechnological entrepreneurship. Biochemistry has advanced significantly following entry of new frontiers in molecular biology. Graduates of this program will be equipped with skills to employ recombinant DNA technology for production of biomedical products including genetically modified organisms.

The programme offers three degree options, namely Medical Biochemistry, Nutritional Biochemistry and Molecular Biology and Biotechnology. The Medical Biochemistry option emphasizes the biochemistry of mammalian organs and tissues and the biochemical basis of drug based therapy. Nutritional Biochemistry option focuses on biochemical basis of nutrition, food formulary and analysis and addresses nutritional requirements at different stages of development in humans in health and disease. Molecular Biology and Biotechnology option emphasizes recombinant DNA technology, genetic engineering and the recent advances in biotechnology. Revision of the three year BSc. Biochemistry program developed in 2002 to a four year program increases student/lecturer contact hours, provides more time for industrial attachment and decongests the academic year, allowing faculty more time for research. Elements of Pharmaceutical Chemistry, a new course unit has been included to enrich the curriculum for students who wish to pursue careers in pharmaceutical industry.

## 2.0 COURSE OBJECTIVES

1. To equip students with theoretical knowledge and practical skills in biochemistry and related fields that are applicable in major sectors of our economy namely, health, agriculture and industry.
2. To impart knowledge necessary to competently undertake research and academic responsibilities in institutions of higher learning in the field of biochemistry and related disciplines.
3. To enhance the capacity of students to exploit, respect and conserve the rich biodiversity available within the environment.

## 3.0 ENTRY REQUIREMENTS

Candidates eligible for admission to the above degree programme will be required to be holders of at least one of the following minimum qualifications:-

- 3.1 An aggregate of C+ grade which is the minimum University of Nairobi admission requirement and must have obtained at Kenya Certificate of Secondary Education (KCSE) the following grades:

Biological Sciences	C+		Biology	C+
Physical Sciences	C+	OR	Chemistry	C+
Mathematics	C+		Mathematics/Physics	C+
English/Kiswahili	C+		English/Kiswahili	C+

- 3.2 Two principal passes at A level in Biology and Chemistry and a subsidiary all obtained at the same sitting.

- 3.3 A degree in Biological Sciences and/or Chemistry from any recognized University.

- 3.4 A Diploma in any of the following from a Senate recognized training institution:

- o Animal Health
- o Agriculture
- o Medical Laboratory Technology
- o Science Laboratory Technology
- o Food Science Technology
- o Education (Biology and Chemistry)
- o Dental Sciences
- o Public Health
- o Basic or Advanced Nursing Diploma
- o Radiography
- o Pharmaceutical Technology
- o Clinical Medicine (Clinical Officers Diploma)

In addition, an applicant must have a minimum of C+ in Biology or Biological Sciences and Chemistry or Physical Sciences at KCSE.

- 3.5 Be registered at the University of Nairobi or at any University recognized by the Senate for degree of Bachelor of Medicine and Bachelor of Surgery or Bachelor of Dental Surgery or Bachelor of Pharmacy or Bachelor of Veterinary Medicine and must have successfully completed the pre-clinical programmes to join in level one of study.

- 3.6 Any other qualification equivalent to the above subject to Senate's approval.

## STAFF LIST

### Chairman of Department:

Muge, E.K., BSc, MSc, (Nairobi), PhD, (BOKU, Austria)

### Professors:

Mulaa, F.J., MSc, (Donnetsk), MSc, (Nairobi), PhD, (Ife)

Makawiti, D.W., BSc, (Nairobi), PhD, (London), MI, Biol, MKNAS

Njogu, R.M., BSc, PhD, (Nairobi)

### Associate Professor:

Mbaya, V.B., BA, (Penn.), MS, PhD, (New York)

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 Omwandho, C.A.O., BSc, MSc, (Nairobi), PhD, (New Castle) *(on leave of absence)*  
 Kinyanjui, P.W., BSc, (Nairobi), MSc, (London), PhD, (York)  
 Nguu, E.K., BSc, MSc, PhD, (Nairobi)  
 Abubukar, L.U., BSc, MSc, PhD, (Nairobi) *(On leave of absence)*  
 Bulimo, D.W., BSc, MSc, (Nairobi), PhD, (Hertfordshire)

#### Senior Lecturers:

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 Muge, E.K., BSc, MSc, PhD  
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 Kamau, J.M., BVM, MSc, (Nairobi), PhD, (Hokkaido)  
 Nyaboga, E.N., BSc, MSc, PhD, (Nairobi)  
 Juma, G., BSc, MSc, PhD, (JKUAT)

#### Lecturers:

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 Wanjohi, P.M., MBChB, (Nairobi), MSc, (Survey)  
 Muhia, L.W.M., BSc, MSc, (Nairobi), PhD, (Florida)  
 Adhiambo, C., BSc., MSc, (Nairobi), PhD, (Purdue)  
 Kanduma, E.G., BSc, MSc, (Nairobi), PhD, (Nairobi)  
 Atunga, BSc, (JKUAT), MSc, PhD, (Leuven, Belgium)  
 Mecha, BSc, Msc, (Nairobi), PhD, (Justus-Liebig, Giessen)  
 Mobegi, BSc, MSc, (Nairobi), PhD, (London)  
 Mulinge, BSc, MSc, PhD, (Leuven, Brussels)

#### Tutorial Fellows:

Bichanga, G., BSc, MSc, (Nairobi)  
 Kariuki, L.W., (Nairobi), MSc, (Vrije)  
 Olouch, K.O., BSc, (KU), MSc, (Nairobi)  
 Wasonga, C., BSc, MSc, (Nairobi)

#### Principal Technologist

Muinamia, K., HND, MSc, (KU)

#### Chief Technologist

Akinyi, N., HND, BSc, (Nairobi)

## BACHELOR OF SCIENCE IN MEDICAL PHYSIOLOGY AND BACHELOR OF SCIENCE IN HUMAN ANATOMY (INTERCALATED PROGRAMMES)

### 1.0 INTRODUCTION

To enable a few MBChB. students who have completed and passed all the courses of the first and second year and have particularly distinguished themselves in those courses to acquaint themselves with more detailed Human Physiology and Anatomy.

To acquaint the selected students with modern research methods and to enable them to develop skills in some of these research methods, specially building upon their work of the First and Second Year Courses.

To enable the selected students to obtain the Degree of Bachelor of Science as an indication of their basic potential for specializing later within the fields of Medicine, Physiology and related Biological Sciences.

### 2.0 ENTRY REQUIREMENTS

Candidates should have completed all courses and passed all examinations of the First and Second Year of the MBChB. Degree course at the University of Nairobi or, at a University recognized for this purpose by the Senate of the University of Nairobi. Successful applicants will be selected for admission to the BSc. Hons. (Human Physiology or Anatomy) course by the Senate of the University of Nairobi, acting on advice of the Board of the School of Medicine and the Academic Board of the College of Health Sciences.

## THEMATIC UNIT OF CLINICAL CHEMISTRY

STAFF LIST
<b>Head of Unit:</b>
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<b>Associate Professor:</b>
Kigundu, C.S., BSc, (Purdue), PhD, (Buffalo) (SUNY)
<b>Senior Lecturer:</b>
Amayo, A.A., MBChB, MMed, (Nairobi)
<b>Lecturer:</b>
Maina, F.W., BSc, MSc, (Nairobi)
Wandolo, G.O, MBChB, (Nairobi), MSc, (Toronto)
Kuria, J.G., MBChB, MMed, (Nairobi)
<b>Tutorial Fellow:</b>
Thaimuta, Z.L., BSc, MSc, (Nairobi)
Walong, E.O., MBChB, (Nairobi)

## DEPARTMENT OF MEDICAL PHYSIOLOGY

### INTRODUCTION

The department offers a wide range of course units in Medical Physiology at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements.

### STAFF LIST

#### Chairman :

Bukachi, F.O., MBChB, MMed, (Nairobi), DIC, MSc, (London), PhD, (Umea)

#### Professor:

Kihumbu, T., MBChB, (EA), PhD, (London), FRCP, (Glasg), FRSM, (London)  
Owino, O., BA Hons, MA Ed., M.A, PhD, CBIOL MBIOL

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#### Senior Lecturer:

Bukachi, F.O., MBChB, MMed, (Nairobi), DIC, MSc, (London), PhD, (Umea)  
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Kariuki, H.N., BDS, MSc, PhD, (Nairobi)  
Mbugua, P.M., BPharm, PhD, (Nairobi) (*on leave of absence*)  
Mureithi, A.W., BDS, MSc, (Nairobi)

#### Lecturer:

Din, M.F., MBChB, MMed, (Nairobi)  
Kinyari, T.N., BSc, MBChB, PGDSTI, (Nairobi), MPH (USA)  
Otieno, E.S., MBChB, (Nairobi), MMed, (E. Africa)  
Waruingi, M.M., MBChB, MMed, (Nairobi)  
Waweru, F.N., MBChB, (Nairobi), MSc, (London)  
Githinji, C.G., BPharm, MSc, PhD, (Nairobi) (*on leave of absence*)  
Mwangi, P.W., BPharm, MSc, PhD, (Nairobi)

#### Chief Technologist:

Kinyungu C.G., O. Dip, HND, BPhil

## DEPARTMENT OF CLINICAL MEDICINE AND THERAPEUTICS

### REGULATIONS AND SYLLABUS FOR FELLOWSHIP IN MEDICAL ONCOLOGY (FMONC)

#### 1.0 INTRODUCTION

The regulations and syllabus described in this document are intended to establish Fellowship training in Medical Oncology and hopefully spearhead development of similar training programs in related disciplines of paediatric oncology, radiation oncology, gynaecology oncology, surgical oncology and palliative care.

Cancer cases are increasing worldwide, and about 70% of the burden of newly reported cases are found in developing countries. In sub-Saharan Africa, cancer registration and surveillance is minimal, therefore, data on cancer occurrence is rudimentary. Evidence from Nairobi County as reported in the Nairobi Cancer Incidence Report 2004 – 2008 clearly indicates that cancer is a major public health problem in Kenya. One of the goals of Kenya Vision 2030 in particular, the Social Pillar, is to improve overall livelihood of Kenyans. This requires among others, provision of efficient and high quality health care with best standards. The Cancer Prevention and Control Act (2012) is now in operation, paving way for the country to roll out programs for cancer treatment and control strategies. One of the 8 major problems identified in the Bill was lack of cancer specialists, limiting achievement of the above goals. The country has a population approaching 46 million people, and just about 20 specialists including 6 medical oncologists involved in cancer treatment, and all except one are based in Nairobi. Training facilities that have traditionally been accessed abroad are expensive and largely unavailable currently, and the situation for most other countries in sub-Saharan Africa is even worse. There is clearly a need to train cancer specialists locally, and if established, should serve as a regional training centre.

#### 2.0 COURSE OBJECTIVES:

- i) shall be to equip the learner with competencies to recognise cancer, make prompt diagnosis and offer appropriate treatment.
- ii) Skills to effectively carry out cancer prevention programs, community surveillance and early detection.
- iii) Competencies in leadership and clinical/environmental management of cancer
- iv) Ability for self learning, critical thinking, research, and the capacity to translate cancer research into practice and policy.

#### 3.0 ENTRY REQUIREMENTS

- 3.1 The common regulations for the fellowship in all faculties of the University of Nairobi shall apply
- 3.2 Candidates eligible for admission into the programme shall in addition fulfil the following conditions:
  - 3.2.1 Be holder of a Master of Medicine degree in Internal Medicine of the University of Nairobi or an equivalent qualification from an institution recognised by the Senate
  - 3.2.2 Be eligible for registration with Medical Practitioners and Dentist Board of Kenya
  - 3.2.3 For those from non-English speaking countries, show evidence of proficiency in English language such as TOEFL/IELTS or evidence of at least 12 years of continuous instruction in English
  - 3.2.4 Posses a valid professional indemnity certificate during the period of training
  - 3.2.5 Certificate of good conduct from Medical practitioners' and Dentists' Board or equivalent Senate approved regulatory authority for international students.

## FELLOWSHIP IN CLINICAL INFECTIOUS DISEASES

### INTRODUCTION

#### Background

Infectious diseases (ID) remain a major cause of morbidity and mortality globally with one third of total human deaths attributable to infections. The World Health Organisation (WHO) estimates that 46 to 52% of all deaths in developing countries are attributable to infections. Infectious diseases are a major impediment to social and economic development. In addition, many hitherto forgotten infections are re-emerging, posing a challenge to already overburdened public health programmes.

The Fellowship in Clinical Infectious Diseases training programme at the University of Nairobi is a 2 year programme designed to train outstanding clinicians in infectious diseases who will have the skills and knowledge to succeed in either the academic or private health care sectors. Completion of the training programme prepares fellows for academic careers in basic science research, clinical research, education, and public health. The program offers extremely diverse training opportunities in general infectious diseases, HIV, medical microbiology, hospital epidemiology, infection

control, tuberculosis, and antimicrobial chemotherapy. Additionally, a structured research program provides mentored research training tailored to each fellow's specific interests. Clinical experience at the Kenyatta National Teaching and Referral hospital provides opportunities for trainees to learn under the mentorship of both clinical investigators and medical educators, while caring for a patient population which includes tertiary care referrals from physicians throughout the region, as well as local populations.

The comprehensive clinical and research curriculum is complemented by an educational curriculum that includes weekly clinical case conferences, microbiology rounds, infectious diseases grand rounds, fellow lecture series, and journal clubs.

### Rationale and Justification of the Programme

An infectious disease service is multidisciplinary, involving clinical microbiologists, clinicians, nurse practitioners, and clinical pharmacists. This integrated approach to management of infectious diseases is non-existent in Kenyan hospitals with work largely being carried out by individual doctors with little sub-speciality training in clinical infectious diseases.

Besides providing infectious diseases consultation services, ID experts also steer antimicrobial stewardship committees, track emerging resistance patterns, lead infection control teams and provide policy guidelines on management of infectious diseases. ID specialists also help in formulating national policy and guidelines on management and control of infectious diseases.

Currently there are no infectious disease specialists registered with the Kenya Medical Practitioners and Dentists Board, whereas WHO recommends 1 specialist for every 200,000 persons.

The necessity to streamline antimicrobial use, control and map local infectious diseases, develop local technical capacity to manage ID, guide national policy and lead research in ID has led to the creation of a clinical fellowship training programme in infectious diseases.

### Programme Philosophy

The necessity to streamline national antibiotic use, control and map local infectious diseases, develop local technical capacity to manage ID, guide national policy and lead local ID research has led to the need for a formal response within the country's institutions of higher learning. The University of Nairobi (UoN) being the foremost think-tank in the country and aware of these challenges is best placed to provide technical expertise and support human resource development in maintaining the gains achieved so far, and strengthen policies needed to fight infectious diseases nationally and in the region. These efforts are supported by the training of infectious disease specialists at the institution. Infectious disease specialists play a critical role in the diagnosis and treatment of challenging infectious diseases, providing antimicrobial stewardship, developing and overseeing infection control policies, improving patient outcomes and reducing infection related health care costs.

### Programme Outcomes

Specifically, fellows who complete the fellowship program will be able to:

1. Demonstrate clinical competence in the assessment, investigation, diagnosis and management of infectious diseases at consultant level
2. Apply knowledge of the appropriate basic sciences relevant to infectious diseases
3. Appreciate and use the multi-disciplinary team approach to management of infection within the hospital and community, including a recognition and understanding of application of public health management
4. Collaborate with the microbiologist and immunologist in the management of infectious diseases
5. Be competent in the management of acquired immunodeficiency states including HIV infection
6. Be competent in the management of congenital immunodeficiency disorders
7. and in the management of immune compromised patients (*with and without AIDS*)
8. Demonstrate knowledge in epidemiology and control of communicable diseases
9. Demonstrate competence in all aspects rational use of antimicrobials and antibiotics
10. Demonstrate a firm grasp of research methodology and participate in and initiate research activity



11. Recognise and manage hospital acquired infection, and institute control systems, including postoperative and intensive care management
12. Utilise evidence based practice in management of infectious diseases
13. Demonstrate leadership and management skills in the clinical management of infectious diseases

## DESIGN AND STRUCTURE/ORGANIZATION

### PROGRAMME DESIGN

This will be a competency based curriculum. It will cover all areas of knowledge, skills and attitudes expected of an infectious diseases specialist. It will be learner centred with outcomes for each area emphasizing on the six domains of core competencies expected of the trainee (patient care, medical knowledge, practice based learning and improvement, interpersonal and communication skills, professionalism and systems based practice).

Trainees will pursue the learning outcomes described in the curriculum through a variety of learning methods. Multisite training will be utilized with integration of theory and practice and also integration between training and service. There will be arrangements for quality assurance in place to ensure consistent local implementation of the curriculum. Most competencies are acquired over a sustained period of experience.

There will be regular work-based assessment by educational supervisors who will be able to assess, with the trainee, their on-going progress and whether parts of the curriculum are not being delivered within their present work place.

The curriculum will be blueprinted so that key competencies will be delivered, and determine the various assessments of knowledge, skills, behaviours and attitudes will be fit for their intended purpose and give coverage across the domains of the curriculum by a process of sampling.

All assessments will be appropriate to the training level of the trainee and will be valid, reliable, systematically collected, judged against pre-determined criteria and appropriately weighted. Feedback will be given confidentially to each trainee with suggestions for improvements where appropriate.

Research is incorporated in the curriculum with the trainees expected to submit and defend a research project prior to sitting their final examination.

## ACADEMIC REGULATIONS OF THE PROGRAMME

### ADMISSION CRITERIA

The common admission regulations of the University of Nairobi shall apply. Candidates eligible for admission into the programme shall in addition fulfil the following conditions:

- Hold a Master of Medicine degree in Internal Medicine or Paediatrics and Child Health of the University of Nairobi or an equivalent qualification from an institution recognised by University of Nairobi
- Possess evidence of eligibility for registration with Medical Practitioners and Dentist Board of Kenya
- Show evidence of proficiency in English language such as TOEFL/IELTS or evidence of at least 12 years of continuous instruction in English language
- Obtain a valid professional indemnity cover during the period of training
- A candidate shall be expected to be of sound mental and physical health, and to conduct him/herself with integrity in a manner befitting the medical profession and in accordance with the following documents:
  - Manual on code of conduct and medical ethics (KMP&DB)
  - Public officer's Ethics Act, 2003 Part III general code of conduct and ethics
- During the selection process the following additional items will be considered:
  - Performance in a written/oral interview
  - Provision of professional referees

## FELLOWSHIP IN MEDICAL ONCOLOGY

### REGULATIONS AND SYLLABUS FOR FELLOWSHIP IN MEDICAL ONCOLOGY (FMONC) OF THE UNIVERSITY OF NAIROBI

#### 1.0 INTRODUCTION

The regulations and syllabus described in this document are intended to establish Fellowship training in Medical Oncology and hopefully spearhead development of similar training programs in related disciplines of paediatric oncology, radiation oncology, gynaecology oncology, surgical oncology and palliative care.

Cancer cases are increasing worldwide, and about 70% of the burden of newly reported cases are found in developing countries. In sub-Saharan Africa, cancer registration and surveillance is minimal, therefore, data on cancer occurrence is rudimentary. Evidence from Nairobi County as reported in the Nairobi Cancer Incidence Report 2004 – 2008 clearly indicates that cancer is a major public health problem in Kenya. One of the goals of Kenya Vision 2030 in particular, the Social Pillar, is to improve overall livelihood of Kenyans. This requires among others, provision of efficient and high quality health care with best standards. The Cancer Prevention and Control Act (2012) is now in operation, paving way for the country to roll out programs for cancer treatment and control strategies. One of the 8 major problems identified in the Bill was lack of cancer specialists, limiting achievement of the above goals. The country has a population approaching 46 million people, and just about 20 specialists including 6 medical oncologists involved in cancer treatment, and all except one are based in Nairobi. Training facilities that have traditionally been accessed abroad are expensive and largely unavailable currently, and the situation for most other countries in sub-Saharan Africa is even worse. There is clearly a need to train cancer specialists locally, and if established, should serve as a regional training centre.

## 2.0 COURSE OBJECTIVES

The objectives of the fellowship programme shall be to equip the learner with:

- i) Competencies to recognise cancer, make prompt diagnosis and offer appropriate treatment.
- ii) Skills to effectively carry out cancer prevention programs, community surveillance and early detection.
- iii) Competencies in leadership and clinical/environmental management of cancer
- iv) Ability for self learning, critical thinking, research, and the capacity to translate cancer research into practice and policy.

## 3.0 ENTRY REQUIREMENTS

- 3.2.1 The common regulations for the fellowship in all faculties of the University of Nairobi shall apply
- 3.2.2 Candidates eligible for admission into the programme shall in addition fulfil the following conditions:
  - 3.2.2.1 Be holder of a Master of Medicine degree in Internal Medicine of the University of Nairobi or an equivalent qualification from an institution recognised by the Senate

- 3.2.2.2 Be eligible for registration with Medical Practitioners and Dentist Board of Kenya
- 3.2.2.3 For those from non-English speaking countries, show evidence of proficiency in English language such as TOEFL/IELTS or evidence of at least 12 years of continuous instruction in English
- 3.2.2.4 Posses a valid professional indemnity certificate during the period of training
- 3.2.2.5 Certificate of good conduct from Medical practitioners' and Dentists' Board or equivalent Senate approved regulatory authority for international students.

### STAFF LIST

#### Chairman

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#### Head Thematic Unit (Medicine)

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#### Professor:

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Otieno, C.F., MBChB, MMed, (Nairobi)

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Were, A.J.O., MBChB, MMed, (Nairobi)
Maritim, M.B.C., MBChB, MMed, (Nairobi)
Kiarie, G.W., MBChB, MMed, (Nairobi)
<b>Lecturer:</b>
Kamau, E.W., MBChB, MMed, (Nairobi)
Karari, E.M., MBChB, MMed, (Nairobi)
Mecha, J.O., MBChB, MMed, (Nairobi)
Mohamed, A.S., MBChB, MMed, (Nairobi)
Acheing, L., MBChB, MMed, (Nairobi)
Ilovi, C.S., MBChB, MMed, (Nairobi)
<b>Tutorial Fellow</b>
Odhiambo, A., MBChB, MMed, (Nairobi)
Genga, E.K., MBChB, MMed, (Nairobi)
<b>Chief Technologist</b>
Kingondu, S.W., HNDMUT (KMTTC), (Nairobi)

## DEPARTMENT OF DIAGNOSTIC IMAGING AND RADIATION MEDICINE

The Department of Diagnostic Imaging and Radiation Medicine offers Masters of Medicine degree course in Diagnostic Radiology and a Higher Diploma course in Medical Diagnostic Ultrasound. The faculty also teaches Radiology to undergraduate medical students during their first, third, fourth and fifth years, and to all the other postgraduate disciplines rotating within the department.

### REGULATIONS AND SYLLABUS FOR HIGHER DIPLOMA IN MEDICAL DIAGNOSTIC ULTRASOUND

#### 1.0 INTRODUCTION

Diagnostic ultrasound is one of the modern rapidly advancing diagnostic technologies, which has revolutionised the practice of medicine in all spheres.

Causes for this rapid growth in medical utilization is not only due to rapid technological advancement but also to the non-invasive nature of the examination and non-ionising energy used in this imaging modality not to mention the lower cost of equipment and running costs compared to other imaging modalities.

Many disease conditions affecting various parts of the body can be imaged effectively by ultrasound. The management of pregnancy has greatly improved Maternal and Neonatal survival rates through improved early diagnosis of pregnancy related diseases by ultrasound. Ultrasound also plays a vital role in Interventional procedures to guide therapeutic and diagnostic management. The training is undertaken in the department which is an affiliate ultrasound training Centre of the Jefferson Ultrasound Institute of the Thomas Jefferson University, Pennsylvania, U.S.A.

#### 2.0. ENTRY REQUIREMENTS

The common regulations for diploma courses of the University of Nairobi, College of Health Sciences shall apply. Candidates eligible for admission into the program shall have the following:-

- 2.1 Holders of Bachelor of Medicine and Bachelor of Surgery, Bachelor of Dental Surgery and BSc Nursing degree or equivalent from institutions recognized by the senate.
- 2.2 Holders of Diploma in Clinical Medicine
- 2.3 Holders of Diploma in Medical Imaging Science
- 2.4 Holders of Diploma in Registered Community Nursing
- 2.5 Any other equivalent qualifications to the above from recognized institutions.

### MASTER OF MEDICINE IN DIAGNOSTIC RADIOLOGY

#### 1.0 INTRODUCTION

The Masters in Medicine degree course in Diagnostic Radiology is intended to provide in-depth clinical academic knowledge and impart practical skills required by the imaging specialist. It provides comprehensive coverage of the physical principles of medical imaging, the anatomical basis of imaging, the techniques employed to generate medical images, the interpretation of images based on clinical information and radiation protection. The course equips the student with the practical skills to perform imaging and interventional procedures, interpret images and write competent reports. The resident is also initiated into research methods and

trained in the management of imaging departments. The goal is to produce a highly competent clinical imaging specialist who can effectively perform using the resources available.

## 2.0 COURSE OBJECTIVES

- i) Equip the student with adequate knowledge on the physical principles of diagnostic imaging.
- ii) Impart adequate knowledge to the trainee on the safe usage of ionizing and non-ionizing radiations used in medical imaging.
- iii) Equip the student with adequate skills in the techniques of performing imaging and interventional procedures, the interpretation of images in the background of sound clinical and pathological changes associated with disease and the presentation of reports.
- iv) Equip the student with the skills and ability to carry out research in Diagnostic Imaging.
- v) Prepare the student to adequately manage Diagnostic Imaging Departments.

## 3.0 ENTRY REQUIREMENTS

The Common Regulations for the Masters Degree of the University of Nairobi.

Candidates eligible for admission into the Master of Medicine Degree in Diagnostic Imaging and Radiation Medicine shall have the following minimum qualifications:-

- i) Be in possession of a MBChB. from the University of Nairobi or from other Institutions recognized by the University of Nairobi Senate. The degree should be registered/registrable by Kenya Medical Practitioners and Dentist Board.
- ii) Student entering the specialty should have at least two years of satisfactory clinical experience, in this case normally comprising as a minimum the intern year and one other full year of satisfactory clinical experience.

### STAFF LIST

#### Chairman of Department:

Mwango, G.N., BSc, MBChB, MMed, (Nairobi), Fell. in Diagnostic Radio., (Harvard)

#### Associate Professor:

Tole, N.M., BSc, MSc, PhD, (Nairobi)

#### Senior Lecturer:

Mwango, G.N., BSc, MBChB, MMed, (Nairobi), Fell. in Diagnostic Radio., (Harvard)

Aywak, A.A., MBChB, MMed, (Nairobi), Fell. Ultra, (Jafferson)

Onyambu, C.K., MBChB, MMed, PGDip, (Nairobi), Fell. in MSK, (Maryland, USA)

#### Lecturer:

Kimani, N.M., MBChB, MMed, (Nairobi)

Odhiambo, A.O., MBChB, MMed, (Nairobi), Fell. Neuroradiology, (Washington)

Muriithi, I.M., MBChB, MMed, (Nairobi)

Mutala, T.M., MBChB, MMed, (Nairobi)

Chacha, P.M., MBChB, (Nairobi), MMed, (AgaKhan Univ. Hospital), Hadassah Fellowship, Subspeciality in Vascular Malformation, (Israel)

#### Tutorial Fellow:

Anyenda, E.O., BSc, MSc, (Nairobi)

#### Senior Technologist:

Barkote, J., Dip., Higher Dip., (KMTC)

#### Technologist:

Manwa, G.O., Dip., (KMTC)

#### Radiographer:

Mulli, D.M., Dip., Higher Dip., (KMTC) (Contract)

## DEPARTMENT OF HUMAN ANATOMY

### REGULATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN HUMAN ANATOMY (BSc.)

#### QUALIFICATION FOR ADMISSION

Candidates should have completed all courses and passed all examinations of the First and Second Year of the MBChB. Degree course at the University of Nairobi. Successful applicants will be selected for admission to the BSc. (Anatomy) course by the University of Nairobi acting on the advice of the Board of the Faculty of Medicine.

Successful applicants will be required to give an undertaking that, upon completion of the course they will continue with their studies for the MBChB. Degree.

## COURSE OBJECTIVES

The objectives of BSc. (Anatomy) degree course shall be as follows:

- 2.1 To enable a few MBChB. students who have completed all the courses of the First and Second Year and have particularly distinguished themselves in those courses to acquaint themselves with more detailed biology of mammals, with particular emphasis on primates.
- 2.2 To acquaint the selected students with modern research methods and to enable them to develop skills in some of these methods specially building upon their work on the First and Second Year courses.
- 2.3 To enable the selected students to obtain the Degree of Bachelor of Science as an indication of their basic potential for specializing later within the fields of medicine and related biological sciences.

## STAFF LIST

### Chairman:

Idenya, P.M., MBChB, MMed, (Nairobi), Masters (Public Health), (Staffor, UK), PhD, (Nairobi), (*On going*)

### Professor:

Malek, A.K., MBChB, MSc Anat., PhD, (Assiut) MSc Paed. (Egypt)  
Ogeng'o, J.A., BSc. Anat. (Hons), MBChB, PhD, MD, DSc, (Nairobi)

### Associate Professor:

Gichangi, P.B., BSc, MBChB, MMed (Ob/Gyn), PhD, (Nairobi), MPH (*on going*)

### Senior Lecturer:

Odula, P.O., BSc. Anat. (Hons), MBChB, (Nairobi), MMed (Surgery), (Makerere), FCS, PhD, (Nairobi)  
Kaisha, W.O., MBChB, MMed (Surgery), (Nairobi), Fellowship (Hepatobiliary Surgery), (India)  
Ndung'u, B.M., BSc. Anat. (Hons), MBChB, MMed, (Surgery), (Nairobi), Dip, (Minimal Access Surgery), (India)  
Mandela, P.I., MBChB, MMed (ENT), (Nairobi), MPH, (UK), PhD (*on going*)  
Madadi, M.O., MBChB, MSc Anat., (Nairobi), MMed. (Obs/Gyn.), PhD, (Nairobi)  
Gikenye, G., MBChB, MMed (Surgery), (Nairobi)

### Lecturer:

Butt, F., BDS, MDS-OMFS, (Nairobi), FDSRCS, (England)  
Ongeti, K.W., BSc Anat. (Hons), MBChB, MSc Anat., (Nairobi), MMed, PhD (*ongoing*)  
Kigera, J.W.M., MBChB, (Nairobi), MMed (Orthopedic), (Makerere)  
Olabu, B.O., BSc Anat. (Hons), MBChB, (Nairobi), MSc (Anat)  
Pulei, A., BSc Anat., (Hons), MBChB, (Nairobi), MSc Anat., MMed (Obs/Gyn) (*on going*)  
Mwachaka, P.M., BSc Anat. (Hons), MBChB, (Nairobi), MSc Anat., MMed (NeuroSurg) (*on going*)  
Kamau, M.W., BDS, MDS, (Nairobi)

## DEPARTMENT OF HUMAN PATHOLOGY

### REVISED REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN HUMAN PATHOLOGY (MMED PATH)

#### 1. INTRODUCTION

The Master of Medicine in Pathology (MMED Path) programme which was started in 1984 offers broad training in the disciplines of anatomic pathology, forensic pathology, immunology, medical microbiology, clinical chemistry, haematology and blood transfusion. Graduates of this program are initially general pathologists who have the capacity to provide pathology services in all levels of clinical laboratories and to engage in relevant research. The training forms a foundation for subspecialisation in other branches of pathology. To date 70 out of the 80 registered pathologists in Kenya are graduates of this programme. Majority of these pathologists have been absorbed by the Ministry of Health, Universities, research institutions and the private sector. It is estimated that Kenya has only 2 pathologists/million of population compared to 10/million in South Africa and 45/million in the United Kingdom. This shortage of pathologists in Kenya is similar to that witnessed in many low resource sub-Saharan countries. The shortage justifies the continued training of multiskilled general pathologists.

Advances in medical science over the years coupled with emergence of diseases like HIV/AIDS and the escalating demand for forensic pathology services has greatly broadened the scope of pathology practice. In addition there has been an increasing

demand for pathologists equipped with leadership and management skills. This review has improved the program by incorporating new content such as molecular pathology, forensic medicine, laboratory leadership and management. In order to accommodate new content and to expand practical exposure, the course duration has been increased from 3 to 4 years.

## 2. COURSE OBJECTIVES

The objectives of the programme shall be to:

- i) Equip students with competence for provision of effective and appropriate modern pathology services in the disciplines of anatomic and forensic pathology, immunopathology, clinical chemistry, medical microbiology, haematology and blood transfusion
- ii) Impart in students requisite professional qualities, etiquette and ethics essential for delivery of human pathology services
- iii) Instil in students ability for life-long self learning, critical thinking, research and the capacity to translate research into practice and policy
- iv) Equip students with competence in laboratory leadership and management.

## 3.0 ENTRY REQUIREMENTS

- 3.1 The common regulations for the Master of Medicine degree in the University of Nairobi shall apply
- 3.2 Applicants eligible for admission to the course shall fulfill the following conditions:
  - 3.2.1 Hold a Bachelor of Medicine and Bachelor of Surgery (MBChB) degree from The University of Nairobi or from an equivalent institution recognized by the University of Nairobi Senate.
  - 3.2.2 Must have successfully completed internship and be registered by The Kenya Medical Practitioners and Dentists' Board or equivalent regulatory body.
  - 3.2.3 Must have a certificate of good standing from the Medical Practitioners and Dentists' Board or equivalent authority
  - 3.2.4 Applicants whose language of instruction for undergraduate programme was not the English language shall provide evidence of proficiency in both written and spoken English language from an institution recognized by the Senate.

### STAFF LIST:

#### Chairman

Kitonyi, G.W., MBChB, FRC Path., (UK)

#### Senior Lecturer:

Rajab, J.A., MBChB, MMed, MPH

## REGULATIONS AND SYLLABUS FOR THE BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES AND TECHNOLOGY (BSc.MLST)

### 1.0 INTRODUCTION

The School of Medicine, in line with the University of Nairobi's mission of producing highly skilled manpower, has developed this programme to continue producing graduates with intellectual and practical skills for local and international needs. Through this programme, the School intends to continue providing a major link in facilitating implementation of the One Health Concept in the management of Human, Animal and Ecosystem Health programmes in Kenya in tandem with global trends.

The Medical Laboratory Science and Technology course is designed to provide scientific basis for training skilled personnel in laboratory science based techniques. Graduates would perform laboratory tests to inform decision making in the area of biomedical laboratory sciences. Members of this profession will play pivotal role in teaching research and health care. In this area they will act as catalysts for industrial development.

### 2.0 ENTRY REQUIREMENT

The common admission requirements for the Bachelor of Science degrees at the School of Medicine, of The University of Nairobi shall apply. In addition, applicants with the following minimum qualifications shall be admissible:-

- Kenya Certificate of Secondary Education (KCSE) with mean grade C+ or equivalent with at least a C+ in Biology, Chemistry and Mathematics or Physics Or at least a grade B in Biological and Physical Science.
- Kenya Certificate of Secondary Education (KCSE) mean grade C or equivalent plus a Diploma in Medical Laboratory Technology, Clinical Medicine, Dental Sciences, Nursing Science, Medical Imaging, Pharmaceutical Technology or

related disciplines from institution(s) recognized by the University of Nairobi Senate. The diploma shall be of credit level and above.

- Kenya Certificate of Education ['O' level] Division II or equivalent plus a diploma in the disciplines indicated in section 3.2 above. The diploma shall be of credit level and above.
- Kenya Advanced Certificate of Education ['A' level] with two Principal passes or equivalent, one of which must be in Biology and the other in Chemistry, plus a subsidiary pass in Physics or Mathematics.

## ANATOMIC PATHOLOGY THEMATIC UNITS

STAFF LIST
<b>Head of Unit</b>
Okemwa, P.M., MBChB, (Nairobi)
<b>Associate Professor</b>
Muchiri, L.W., MBChB, MMed, (Nairobi), PGD (RM), FCPATH (ECSA), PhD, (Nairobi)
<b>Senior Lecturers</b>
Waweru, W., MBChB, MMed, (Nairobi), FCPATH (ECSA)
Mbithi, D.M, MBChB, MMed, (Nairobi)
<b>Lecturers</b>
Okemwa, P.M., MBChB, (Nairobi)
Ndungu, J.R., MBChB, (Nairobi), FCPATH, (ECSA)

Tutorial Fellow
Rioki, J., BSc, MLST, MSc. Cytology
Chief Technologists
Ochuk, W., HND, BSc. MLST
Kairu, J., HND

## CLINICAL CHEMISTRY THEMATIC UNITS:

STAFF LIST
<b>Head of Unit:</b>
Kuria, J.G., MBChB, MMed, (Nairobi)
<b>Professor:</b>
Kigundu, C.S, BSc, (Purdue), PhD, (Buffalo), (SUNY)
<b>Associate Professor</b>
Amayo, A.A., MBChB, MMed, (Nairobi), Dip(TQM), FCPATH, (ECSA)
<b>Lecturers</b>
Wandolo, G.O., MBChB, (Nairobi), MSc, (Toronto)
Kuria, J.G., MBChB, MMed, (Nairobi)
Thaimuta, Z.L., BSc, MSc, (Nairobi)
<b>Tutorial Fellow</b>
Njeru, C.W., MBChB
<b>Chief Technologist</b>
Mogi, D., HND, BSc, MLST

## HAEMATOLOGY AND BLOOD TRANSFUSION THEMATIC UNITS:

STAFF LIST
<b>Head of Unit:</b>
Abdallah, F.K., MBChB, MMed, (Nairobi), FCPATH, (ECSA)
<b>Professor:</b>
Mwanda, W., MBChB, PMRC Path, Cert, Epidem. & Biostat. (Johns Hopkins) MD, (Nairobi)
<b>Associate Professor:</b>
Kitonyi, G.W., MBChB, FRC Path, (UK), FCPATH, (ECSA)
Githanga, J.N., MBChB, MMed, (Nairobi), FCPATH, (ECSA)
<b>Senior Lecturers</b>
Rajab, J.A., MBChB, MMed, MPH, (Nairobi), FCPATH, (ECSA)
Maturi, P.M., MBChB, MMed, (Nairobi)
<b>Lecturers</b>
Kibet, P., MBChB, MMed, (Nairobi)
<b>Tutorial Fellow</b>
Okinyi, F., MBChB, MMed, (Nairobi)
Magutu, V.K., MBChB, MMed, (AKU)
<b>Principal Technologist</b>
Ireri, J.M., HND, MSc, IDD, (KU)
<b>Chief Technologist</b>
Simiyu, C.N., HND, BSc, MLST

## IMMUNOLOGY THEMATIC UNITS:

<b>Thematic Head:</b>
Gontier, C.S., BSc, (Human Anatomy), MBChB, MMed, (Nairobi)
<b>Senior Lecturers</b>
Njagi, E.C., MBChB, (Nairobi), MSc, (Immunology), (Birmingham, UK)
Nyagol, J., BSc, (Egerton), MSc, PhD, (Sienna)
<b>Lecturers</b>
Oyaro, M.O., BSc, MSc, PhD
Barasa, K.A., MBChB, MMed, (Nairobi)
<b>Principal Technologist</b>
Kimani, M., HND (Immunology), BSc
<b>Chief Technologist</b>
Kamuyu, M., HND MLST

## DEPARTMENT OF MEDICAL MICROBIOLOGY

### INTRODUCTION

The department offers a wide range of course units in Medical Microbiology at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements for Bachelor of Science degrees at the School of Medicine of the University of Nairobi.

<b>STAFF LIST</b>
<b>Chairman :</b>
Mureithi, M., BSc, (Essex), PhD, (Bristol)
<b>Professor</b>
Estambale, B.B.A., MBChB, (Nairobi), MSc, DTM&H, (Liverpool), PhD, (Nairobi) ( <i>on leave of absence</i> )
Jaoko, W.G., MBChB, (Nairobi), MTropMed, (Liverpool), DRM, (Copenhagen), PhD, (Nairobi), PGD Health Research Ethics, (Stellenbosch)
Anzala, A.O., MBChB, (Nairobi), PhD, (Manitoba)
<b>Senior Lecturer</b>
Ndombi, S.J., MBChB, (Nairobi), MMed, (SMU)
Odhiambo, F.A., MBChB, MMed, (Nairobi)
Mwaengo, D.M., BSc, (Nairobi), PhD, (Colorado State)
Oyugi, J.O., MSc, (London), PhD, (Manitoba)
<b>Lecturer</b>
Mutua, F.M., MBChB, MSc Medical Microbiology, (Nairobi)
Njaanake, H.K., BSc, MSc, PhD, (Nairobi)
Omosa, M., MBChB, (Nairobi), MSc, (London)
Mureithi, M., BSc, (Essex), PhD, (Bristol)
<b>Assistant Lecturer:</b>
Otido, J.M., MBChB, (Nairobi)
<b>Tutorial Fellow</b>
Odera, S.A., BSc, MSc, (Nairobi)
Mutai, W.C., BSc, MSc, (JKUAT)
Masika, M.M., MBChB, MSc, TID, (Nairobi)
Maina, A.N., MBChB, MSc Medical Microbiology, (Nairobi)
<b>Chief Technologist</b>
Onyono, E.M., HDLMT, (Nairobi)

## DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

### INTRODUCTION

The department offers a wide range of course units in Obstetrics and Gynaecology at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements for Bachelor of Science degrees at the School of Medicine of the University of Nairobi.

<b>STAFF LIST</b>
<b>Chairman:</b>
Omondi, O., MBChB, MMed Obs/Gyn, PGDRM, (Nairobi)
<b>Professors</b>
Ojwang, S.B.O., M.D., (Bratislava), MMed, DipGyn Onc. Fellowship in Cytology, (Nairobi)
<b>Associate Professors</b>
Qureshi, Z.P., MBChB, MMed, (Nairobi)
Karanja, J.G., MBChB, MMed, (Nairobi)
Oyieke, J.B.O., MBChB, MMed, (Nairobi)
Kamau, R.K., MBChB, MMed, (Nairobi)
Ndavi, P.M., MBChB, MMed, (Nairobi), MSc. Epid, DLSHTM (Lon), FHBR, (Harv)
M'Machoki, J., MBChB, MMed, (Nairobi), MPH, (Washington)
Ogotu, O., MBChB, MMed, PGDRM, (Nairobi)
Cheserem, E.J., MBChB, MMed, PGDRM, (Nairobi), Dip IMHC, (Sweden)



Jaldesa, G., MBChB, MMed, (Nairobi), MSc, (Edinburg)  
 Kiarie, J., MBChB, MMed, (Nairobi), MPH (*on leave of absence*)

#### Senior Lecturers

Wanyoike, J.G., MBChB, MMed, (Nairobi)  
 Gachuno, O., MBChB, MMed, PGDRM, (Nairobi)  
 Kihara, A., MBChB, MMed, (Nairobi)

#### Lecturers

Odawa, F.X.O., MBChB, MMed, (Nairobi)  
 Kosgei, R., MBChB, (Moi), MMed, PGDRM, (Nairobi), MSc, (Clin trials)  
 Osofi, A., MBChB, MMed, (Nairobi), MPH, (UoW)  
 Ochiel, S., MBChB, MMed, (Nairobi)  
 Gwako, N., MBChB, MMed, (Nairobi)  
 Bosire, N., MBChB, MMed, (Nairobi)  
 Ondieki, D., MBChB, MMed, (Nairobi)  
 Omanwa, K., MD, SP Obs/Gyn, PhD, (Poland)  
 Kilonzo, M., MBChB, MMed, (Nairobi)

#### Chief Technologist

Juma, M., PGD-RM, (Nairobi), BSc, MEd Micro, (JKUAT)

#### Honorary Lecturers

Maranga, I.O., MBChB, MMed, (Nairobi), PhD  
 Okutoyi, L., MBChB, MMed, (Nairobi)  
 Ong'ech, J., MBChB, MMed, (Nairobi), MPH  
 Kinuthia, J., MBChB, MMed, (Nairobi)  
 Kamau, G., MBChB, MMed, (Nairobi)  
 Mehdat, A., MBBCH, (Cairo), MMed Obs/Gyn

Tamooh, H., MBChB, MMed, MPH Washington, (Nairobi)

Kiragu, J., MBChB, MMed, (Nairobi) Murage, W., MBChB, MMed, (Nairobi)

Mokomba, A., MBChB, MMed, (Nairobi)

Mutiso, S., MBChB, MMed, (Nairobi)

Aswani, MBChB, MMed(Obs/Gyn)

Sang, E., MBChB, MMed, (Nairobi)

Ndirangu, G., MBChB, MMed, (Nairobi)

Mwangi, F., MBChB, MMed, (Nairobi)

Kagama, F., MBChB, MMed, (Nairobi)

Owende, P., MBChB, MMed, (Nairobi)

Owiti, M., MBChB, MMed, (Nairobi)

Omuga, B, MBChB; MMed(Obs/Gyn)

Machira, J., MBChB, MMed, (Nairobi)

Onyango, E., MBChB, MMed(Obs/Gyn)

Michoma, P., MBChB, MMed(Obs/Gyn)

Musaliala, W., MBChB, MMed, (Nairobi)

Ikol, A., MBChB, MMed(Obs/Gyn)

Chemwey, R., MBChB, MMed(Obs/Gyn)

Ogweno, M., MBChB, MMed(Obs/Gyn)

## DEPARTMENT OF OPHTHALMOLOGY

### INTRODUCTION

The department offers a wide range of course units in Ophthalmology at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements for Bachelor of Science degrees at the School of Medicine of the University of Nairobi.

## STAFF LIST

### Chairman :

Karimurio, J., MBChB, MMed, (Nairobi), MSc CEH, (London), FEACO, PhD, (Melbourne)

### Associate Professor:

Masinde, M.S., MBChB, MMed, (Nairobi), DCEH, (London)

Ilako, D.R., MBChB, MMed, (Nairobi), MBA, (Durban), FEACO

Karimurio, J., MBChB, MMed, (Nairobi), MSc CEH, (London), FEACO, PhD, (Melbourne)

### Senior Lecturer:

Gichuhi, S., MBChB, MMed, (Nairobi), MBA, (Leicester), MSc Epi., (London), FEACO

Kimani, K., MBChB, MMed, (Nairobi), MSc CEH, (London), FEACO

Njuguna, M.W., MBChB, MMed, (Nairobi), FPO&S, (India), FEACO

Kariuki, M., MBChB, MMed, (Nairobi), FEACO

Marco, S., MBChB, MMed, (Nairobi), Glaucoma (Alberta), FEACO

### Lecturer:

Njambi, L.N., MBChB, MMed, (Nairobi), ICO, FEACO

Nyamori, J.M., MBChB, MMed, (Nairobi), FEACO

Mukiri, M., MBChB, MMed, (Nairobi), ICO, FEACO

Nyenze, E., MBChB, MMed, (Nairobi), Oculoplastics/Orbit, (India), FEACO

Gachaga, M., MBChB, MMed, (Nairobi), ICO, FEACO

### Tutorial Fellow

Nyamai, L., MBChB, (Nairobi)

## DEPARTMENT OF ORTHOPAEDIC SURGERY

### INTRODUCTION

The department offers a wide range of course units in Orthopaedic Surgery at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements for Bachelor of Science degrees at the School of Medicine of the University of Nairobi.

#### STAFF LIST

##### Chairman :

Mutiso, V.M., MBChB, MMed, (Nairobi), FCS, (ECSA)

##### Associate Professor:

Atinga, J.E.O., MBChB, MMed, (Nairobi), MCH, Orth, (Liverpool) FCS, (ECSA)

Gakuu, L.N., MBChB, MMed, (Nairobi), FRCS, FCS (ECSA)

Mbindyo, B.S., MBChB, (Makerere), MMed, (Nairobi), FCS (ECSA)

Mulimba, J.A.O., MBChB, MMed, (Nairobi), FRCS, FCS (ECSA)

##### Lecturer:

Kireti, V., MBChB, MMed, (Nairobi)

Gakuya, E.M., MBChB, MMed, (Nairobi)

Mogire, T.S., MBChB, MMed, (Nairobi)

Museve, G.K., MBChB, MMed, (Nairobi), FCS, (ECSA)

Mutiso, V.M., MBChB, MMed, (Nairobi), FCS, (ECSA)

Mwangi, J.C., MBChB, MMed, (Nairobi)

## DEPARTMENT OF PAEDIATRICS AND CHILD HEALTH

### INTRODUCTION

The department offers a wide range of course units in Paediatrics and Child Health at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements for Bachelor of Science degrees at the School of Medicine of the University of Nairobi.

The Department has two Academic Programs:

1. Master of Medicine (MMed) (Paediatrics) and Child Health
2. Level IV MBChB training in Paediatrics

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE (M.MED) IN PAEDIATRICS AND CHILD HEALTH

### 1.0 INTRODUCTION

#### 1.1 Background

The Master of Medicine in Paediatrics and Child Health degree program was launched in 1973 prompted by the need to have locally trained specialists in the field equipped with knowledge and critical clinical skills relevant to local health problems provide leadership of curative and preventive services and be involved in training and research. The curriculum in use at present was first drawn up in 1973 and progressively reviewed in-house over the years as new challenges in the field emerged. Past graduates have functioned well as clinicians, administrators, international policy makers, academics and researchers. Collectively they

have greatly influenced child health in Kenya and globally.

The population of Kenya has increased significantly over the past 30 years, children below 14 years comprising 43% of 40.5 million, with consequent increased need for trained paediatricians. Currently there are 207 registered paediatricians in Kenya giving ratio of 1 paediatrician: 84,100 children – far below the World Health Organisation recommended ratio of 1:5000. A lot has changed in the science and care of children round the world with increased clarification of evidence based practices that reduce child deaths and improve the quality of life. New health challenges include HIV and metabolic disease such as obesity. Globally, there is a call for reform of medical education to be transformative of the society that is served by the graduates. This has resulted in new benchmarks on the different roles beyond the medical expert with graduates expected to be expert communicators, collaborators, managers, health advocates, scholars and professionals. Alongside there is a shift towards increased incorporation of competency based training and evaluation. It is against this background that this curriculum has been reviewed.

### 2.0 COURSE OBJECTIVES

The objectives of the course are to train medical specialists in paediatrics and child health who are able to:

- a) Effectively prevent disease and promote health in children at individual, family and community levels.
- b) Master the requisite diagnostic and therapeutic skills to competently evaluate and manage paediatric disease conditions in various clinical settings

- c) Demonstrate clear understanding of the design, implementation, monitoring and evaluation of child health programmes, and provide leadership in the organisation and running of preventive and curative health services for children; Be strong advocates for the rights of children, especially with regards to health.
- d) Provide health education to individuals, families and communities on child health, as well as provide continual medical education in child health to the health team.
- e) Design and implement research, analyse and utilise emerging evidence and available resources to address paediatric and child health problems, taking note of local priorities.

### 3.0 ENTRY REQUIREMENTS

Common regulations for the Master of Medicine Degree in the University of Nairobi shall apply. Candidates eligible for admission into the course shall fulfil the following conditions:

- 3.1 Be in possession of a medical degree e.g. MBChB from the University of Nairobi, or its equivalent from other institutions recognised by the University of Nairobi Senate.
- 3.2 Possess evidence of registration or eligibility for licensing by Kenya Medical Practitioners and Dentists Board.
- 3.3 Have completed at least two years after completion of MBChB or its equivalent. These should include at least one year of internship in a medical institution recognised by the Medical Practitioners and Dentists Board and been registered as a Medical Officer in Kenya or country of origin for foreign students.
- 3.4 Possess a certificate of good conduct from the Medical Practitioners and Dentists Board or equivalent authority from the county of origin for foreign students.
- 3.5 Pass a written and oral entry examination. Applicants from foreign countries who qualify for admission and who for reasons acceptable to the recruitment committee are unable to present themselves in-person for the interviews, shall undergo an oral examination or interview through available media such as video or skype, but may be exempted from requirements of written entry examination.
- 3.6 If the language of instruction during the applicant's undergraduate training was not in English, he/she must present a certificate of proficiency in English from an institution recognised by the University of Nairobi.
- 3.7 Obtain a valid professional indemnity cover during the period of training.

## REGULATIONS AND SYLLABUS FOR THE PAEDIATRIC ANAESTHESIA FELLOWSHIP

### 1.0. INTRODUCTION

Access to safe anaesthesia and pain relief following surgery is considered a basic human right in the 21<sup>st</sup> century. International standards for the safe practice of anaesthesia, adopted by the World Federation of Societies of Anaesthesiologists (WFSA) in 1992, are seldom reached thus producing a higher than accepted morbidity and mortality in the paediatric population. In Africa, the peri-operative mortality rate for the paediatric surgical patient is the highest in the world. Although many factors need to be addressed to lower this morbidity and mortality, education of physicians who specialize in paediatric anaesthesia is the first essential step.

Kenya has a population of forty million people, half of whom are under 14 years of age. Currently (2012), there are 140 physician Anaesthesiologists in Kenya and only 5 trained Paediatric Anaesthesiologists. In Africa, there are only two training centres; one in Tunisia and the other in Cape Town, South Africa. Opportunities for training paediatric anaesthesiologists outside the East African region are limited owing to competition for the fellowship positions. In many African institutions, most children undergoing very complicated surgery do not often have the benefit of being attended to by a physician Anaesthesiologist, let alone a Paediatric Anaesthesiologist. The opportunity to improve the anaesthesia care of the paediatric surgical patient in East Africa will be the product of this fellowship training. The increase in numbers of paediatric anaesthesia educators and clinical practitioners produced from this programme will expand the care of multitudes of paediatric surgical patients.

This programme is expected to allow for appropriate training within an East African setting whose challenges include: delayed patient presentation, resource poor setting, and lack of appropriate hospital infrastructure. This programme, located in East Africa rather than in other environments, will produce the physician anaesthesia care provider who can most successfully care for the surgical patients who present at both the urban and rural surgical settings within the East African region. The development of subspecialists within the field of Anaesthesia is a further demonstration of the ongoing advancements in medical education. It is also in line with the social arm of Kenya's Vision 2030 whose aim is to ensure provision of efficient and high quality health care system. The department of surgery of the University of Nairobi has the capacity to mount and sustain this programme

Various anaesthetic associations throughout the world will through WFSA provide technical support in running this programme. Kenyatta National Hospital will be used for clinical training. There will be collaboration with other health institutions in Kenya. These will initially include A.I.C. Kijabe Hospital, The Aga Khan University Hospital and The Gertrude's Garden Children Hospital.

## 2.0 COURSE OBJECTIVE

To train Anaesthesiologists with relevant knowledge, skills and competencies for safe delivery of anaesthesia care to children.

## 3.0. ENTRY REQUIREMENTS

Candidates eligible for admission shall;

- 3.1. Be holders of Master of Medicine degree in Anaesthesiology of the University of Nairobi, or equivalent qualifications recognized by the senate of the University of Nairobi
- 3.2. Have practiced for one year post qualification.
- 3.3. Be a registered medical practitioner and show evidence of retention on the list of the Medical Practitioner's and Dentists Board.
- 3.4. Be of sound character and possess a certificate of good standing from the regulatory authority.
- 3.5. Posses a valid professional indemnity cover through the training period.

### STAFF LIST

#### Chairperson:

Wamalwa, D., MBChB, MMed, (Nairobi), MPH(Epid), (Washington)

#### Professor

Nduati, R.W., MBChB, MMed, (Nairobi), MPH, (UW)  
 Were, F., N., MBChB, MMed, (Nairobi), MD, FNIC, (Australia)  
 Wasunna, MBChB, MMed, (Nairobi), Fellow Neo, (UK), Paediatrics and Child health  
 Wafula, E.W., MBChB, MMed, (Nairobi), Fellow ClinEpidemiol, (Pennsylvania)  
 Musoke, R., MBChB, MMed, (Makerere), FABM, (UK),  
 Obimbo, E.M., MBChB, MMed ,(Nairobi), MPH (Epid), F. Pulm (VCT), (UW)

#### Associate Professor

Onyango, F.E., MBChB, MMed, (Nairobi), MPH, (Chapel Hill), Fellow Community Paed, Cert ClinEpid, cert Lactation management Tropical medicine  
 Irimu, G.W., MBChB, MMed, (Nairobi), PhD, (Open University)  
 Wamalwa, D.C. ,MBChB, MMed, (Nairobi), MPH, (UW)  
 Jowi, C., MBChB, MMed ,(Nairobi), Dip Paed Card, (Italy)

#### Senior Lecturer

Kariuki, N., MBChB, MMed, (Nairobi), MPH, (UW)  
 Njai, D., MBChB, MD, Dip (Paed), PADUA  
 Laving, A.M. R. M. MBChB, MMed, (Nairobi), Cert, (Gastro)  
 Admani, M.B., MBChB, MMed, (Nairobi), Fellow Int soc paedneph, (Cape Town)  
 Murila, F.V., MBChB, MMed, (Nairobi), FNIV, (Australia)  
 Wainaina, L.N., MBChB, MMed, (Nairobi), MSc Paed Endo) (Spain)

#### Lecturer

Kumar, R.K. MBBS, (India), MMed, (Nairobi), Critical care specialist, Fellow Asthma Allergy, (Madras)  
 Oyatsi, D.P.O., MBChB, MMed, (Nairobi), Dip PaedNeuro (UK)  
 Korongo, A., BA (Nairobi), MA (Nairobi), Sociology and Social wor

## DEPARTMENT OF PSYCHIATRY

### INTRODUCTION

The department offers a wide range of course units in Psychiatry at undergraduate and graduate levels.

### ENTRY REQUIREMENTS

A candidate must meet the minimum university and admission requirements for Bachelor of Science degrees at the School of Medicine of the University of Nairobi.

### STAFF LIST

#### Chairman of Department

Obondo, A.A., BA, (India), DipPsy. Social Work, (UK), PhD, (Nairobi)

#### Professor:

Ndetei, D.M., MBChB, (Nairobi), DPM, (London), FRC. Psych. (UK) MD, DSc, (Nairobi), Cert. in Psychotherapy, (London), DSc, (Nairobi)

#### Associate Professor:

Kuria, M.W., MBChB, MMed, PhD, (Nairobi)  
 Othieno, C.J., MBChB, MMed, (Nairobi)

**Senior Lecturer:**

Mulindi, S.A.Z., BSc, MSc, (Montpellier III), DEA (Marseille I), PhD, (Lyons II) Cert. Harvard, DSc, (*Candidate Sorbonne*).

Kathuku, D.M., MBChB, (Makerere), MMed, (Nairobi)

Kigamwa, A.P., MBChB, MMed, (Nairobi)

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Kangethe, R.N., MBChB, MMed, (Nairobi)

Mburu, J.M., MBChB, MMed, (Nairobi)

Muthoni, M., MBChB, MMed, (Nairobi), PhD, (Kassel, Germany)

Owiti, F.R., MBChB, (Nairobi), MSc, (London), MRC Psych. (UK).

Kumar, M., BA Psych., MA Psych., MPhil Psych, (Delhi), MSc, PhD Psych., (London)

**Lectures**

Kamau, J., MBChB, MMed, (Nairobi)

Mbwayo, A., BA Counseling Psych, MSc. Clinical Psych, PhD Clinical Psych (Nairobi)

Khasakhala, L., MBChB, MSc. Clinical Psych (Nairobi)

**Tutorial Fellow**

Okoth, R., BA (Counseling Psych), MSc, Clinical Psych (Nairobi), PhD *Students*

Ng'ang'a, P., MBChB, MSc. Clinical Psych, MMed Psychiatry, (Nairobi), Registered for PhD

Mutavi, T., BA Social Work (Catholic Univ.), MA Sociology (Nairobi), Registered for PhD

Mbaka, C.W., MBChB, MMed, (Nairobi)

**DEPARTMENT OF SURGERY****INTRODUCTION**

The department offers a wide range of course units in Surgery at undergraduate and graduate levels.

**Entry Requirements**

A candidate must meet the minimum university and admission requirements for Bachelor of Science degrees at the School of Medicine of the University of Nairobi.

**STAFF LIST****Chairman of Department:**

Kiboi, J.G., MBChB, MMed, (Nairobi), Neurosurg fellowship (Pretoria)

**Professors:**

Jani, P.G., MBChB, MMed, (Nairobi), FRCPS, FCS (ECSA)

Kyambi, J.M., MD, (Heidelberg), FACS, (Glessen), FAC Paed. (Cologne) (*Contract*)

Macharia, I.M., MBChB, MMed, (Nairobi)

Magoha, G.A.O., MBBS, (Lagos), FRCS, FMCS (Urol.) FWACS, FICS, FABI, FIBA, FCS, (ECSA), MKNAS

Mwangombe, N.J.M., MBChB, MMed, (Nairobi), PhD, (London)

Oburra, HO., MBChB, MMed, (Nairobi), FRCS, (Edinburgh)

Odhiambo, P.A., MBBS, (Calcutta), MMed, (Nairobi), FRCS, (Edinburgh) (*Contract*)

Ogendo, S.W.O., MBChB, MMed, (Nairobi), FCS (ECSA) (*Unpaid leave*)

Oliech, J.S., MBChB, (Makerere), FRCS, (Ireland) (*Contract*)

**Associate Professors:**

Ndaguatha, P.L.W., MBChB, MMed, (Nairobi), Cert. Urol, (UK), FCS (ECSA)

Ngugi, P.M., MBChB, MMed, (Nairobi), Cert Urol (RCS)

Ominde, S.K., MBChB, MMed, (Nairobi), FPRCS, (Medunsa)

**Senior Lecturers:**

Githaiga, J.W., MBChB, MMed, (Nairobi), Cert. Gen Vascular Surg. (Tel Aviv), Dip. Visceral and Surgical Oncology, (Munich), Laparascopy, (Hamburg)

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Mugwe, P., MBChB, MMed, (Nairobi)

Muturi, J.M., MBChB, MMed, (Nairobi), Paed Surg. (UK)

**Lecturers:**

Musau, C., MBChB, MMed, (Nairobi), Neurosurg. (UK)

Mwangi, P.W., MBChB, MMed, (Nairobi)

Okoth, P.A., MBChB, MMed, (Nairobi), Neurosurg. (UK)

Oluoch-olunya, D.L., OGW, MBChB, (Nairobi), FRCSEd, FRCS (SN)

Omulo, T.M, MBChB, MMed, (Nairobi)

Owill, FA., MBChB, MMed, (Nairobi), Cert. Urol. (KCMC), Fellow (COSECSA)

Wanjeri, J.K., MBChB, MMed, (Nairobi), IPTM Cert. (Tel Aviv), MPH (Nairobi)

Nyaim, E.O., MBChB, MMed, (Nairobi), EMBA (JKUAT), LEHHO (Cert Strath)

Awori, M.N, MBChB, MMed, (Nairobi), Fel. PCCS (New Zealand)

Abdullahi, A.A., MBChB, MMed, (Nairobi), FPRCS (MEDUNSA), Cert. Hand Surg. (Ganga)  
 Aswani, J.M., MBChB, MMed, (Nairobi), Head & Neck Surg Oncology fellowship (UCT)  
 Ayugi, J.W., MBChB, MMed, (Nairobi)  
 Ndegwa, S.N., Dip. Clinical Audiology, MSc AuD, (Manchester)  
 Wekesa, D.V, MBChB, MMed, (Nairobi)  
 Nangole, F.W., MBChB, MMed, (Nairobi), EBOPRAS Fellow  
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 Osawa, F.O., MBChB, MMed, (Nairobi)  
 Kuria, D.K., MBChB, MMed, (Nairobi)  
 Kiptoon, D.K., MBChB, MMed, (Nairobi)  
 Irungu, C.W., MBChB, MMed, (Nairobi)

**Tutorial Fellows:**

Nikita, P.M., MBChB, (Nairobi)  
 Omondi, M.A., MBChB, (Nairobi)  
 Karanja, F.W., MBChB, (Nairobi)  
 Swaleh, H.S., MBChB, (Nairobi)  
 Mwika, P.M., MBChB, (Nairobi)  
 Kitunguu, P.K, MBChB, (Nairobi), MSc (Anat)  
 Magotha, M.A.A., MBChB, (Nairobi)  
 Mitema, F.O., MBChB, (Nairobi)  
 Muoki, A., MBChB, (Nairobi)  
 Omar, A.N.A, MBChB, (Nairobi)  
 Karanja, S.W., MBChB, (Nairobi)

**Senior Administrative Assistant:**

Nabakwe, M.K., BA, (Nairobi), Postgraduate Dip. (IHRM)

**Senior Technologists:**

Irungu, J.N., Higher Dip. Electronics, (Kenya Poly)

**Rheumatic Heart Disease Genetics Project Staff in Surgery Department**

Musyoki, E., BSc.N, (Nairobi), Cert. Project Dev. (EAICS), Cert HIV Counselling, (Nairobi)  
 Kamau, N., Dip in Biology

**DEPARTMENT OF ANAESTHESIA**

**INTRODUCTION**

The department offers a wide range of course units in Anaesthesia at undergraduate and graduate levels.

**ENTRY REQUIREMENTS**

A candidate must meet the minimum university and admission requirements for Bachelor of Science degrees at the School of Medicine of the University of Nairobi.

**STAFF LIST**

**Chairman**

Chokwe, T.M., BSc. Anatomy MBChB, MMed, (Anaesthesia), (Nairobi), Fellowship in Paed. cardiac anaes. Transplant Anaes.

**Associate Professor:**

Ngumi, Z.W., MBChB, DA, (London), MMed, (Anaes.), FFARCS (England)

**Senior Lecturer**

Olang, P.R., MBChB, MMed, (Anaesthesia), (Nairobi), Fellowships in Obs. and Paed. Anaes., PDGRM

Chokwe, T.M., BSc. Anatomy MBChB, MMed, (Anaesthesia), (Nairobi), Fellowship in Paed. cardiac anaes. Transplant Anaes.

**Lecturer**

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 Mwiti, T.M., MBChB, (Moi), MMed, (Anaesthesia), (Nairobi), Fellowship in Pain Medicine  
 Gatheru, A.P., MBChB, MMed, (Anaesthesia), (Nairobi)  
 Nabulindo, S.M., MBChB, MMed, (Anaesthesia), (Nairobi), Fellowship in Paediatric anaesthesia  
 Mwangi, C.M., MBChB, MMed, (Anaesthesia), (Nairobi), Fellowship in cardiac Anaesthesia

**REVISED SYLLABUS OF HIGHER DIPLOMA IN CLINICAL AUDIOLOGY AND PUBLIC HEALTH OTOTOLOGY**

**INTRODUCTION**

Audiology is the discipline of science which addresses the assessment and rehabilitation of persons with hearing and balance disorders. Hearing impairment is a major cause of disability globally, with World Health Organisation estimating that 360 million people are affected. Hearing impairment and deafness can have profound individual, societal and economic consequences. In developing countries, there are few health workers trained to adequately detect and manage hearing impairment. In Kenya, the Audiologist to population ratio is 1: 6,400,000. There are 47 counties in Kenya and currently there are only three counties that have Audiology departments. There is no public health institution in the country that is running a speech and language therapy department. The Diploma in Clinical Audiology and Public Health Otology was began at the University of

Nairobi in September 2002. The revised syllabus was drawn by clinical and academic audiologists from the University of Nairobi, Kenyatta National Hospital, the University College of London (UCL) and the Kenya Society of Audiology. Input into this revised syllabus was also given by stakeholders drawn from the Kenya Medical Training College, Kenya Institute of Special Education, the Ministry of Health, the Ministry of Education, Science and Technology and alumni from the existing Diploma in Clinical Audiology and Public Health otology programme. The changes made to the syllabus aim at improving the clinical competencies of the students by exposing them to more practical sessions during their course work. To this end the revised syllabus has introduced a clinical logbook and increased the number of hours of supervised clinical exposure for the students. The other changes made are restructuring and expanding the course content of the modules. The previous module on Instrumentation and Calibration has been merged with the Audiological Assessment and renamed as Diagnostic Audiology. The Habilitation and Rehabilitation module has been renamed Amplification and Aural Rehabilitation, and the course content expanded. The modifications contained in this revised syllabus are aligned with that of the Year 2 syllabus of the 4 year BSc Audiology programme offered at the University College of London. The programme will consist of 6 taught modules. The future view is that students graduating with this undergraduate Diploma would be able to progress to do a BSc degree in Audiology.

The Diploma in Clinical Audiology and Public Health Otology programme is designed to equip graduates of the course with requisite theoretical and practical skills required in providing Audiological services to the community at the district/county/secondary healthcare level.

### COURSE OBJECTIVES

1. The necessary knowledge and skills for early identification, assessment, management and prevention of hearing impairment and vestibular dysfunction in adults and children in the Primary Health Care setting.
2. An understanding of the scientific and Public Health base of Audiology and Public Health Otology.
3. Knowledge and skills in developing integrated comprehensive Audiology and Public Health Otology services organized from the community level.

### ENTRY REQUIREMENTS

A minimum 'O' level division II KCSE with credit passes in Biology, Chemistry and Physics or Physical Science and Mathematics, or C+ mean

Grade in KCSE with an average cluster weight of C+ in relevant subjects as shown below:

#### Alternative A:

- Chemistry
- Biology
- Maths or Physics
- English or Kiswahili

#### Alternative B:

- Biological Sciences
- Physical Sciences
- Mathematics
- English or Kiswahili

- i) Candidates must have trained in any of the following professional courses at the Kenya Medical Training College or a recognized Medical Training Institution:
  - Clinical Officers
  - Laboratory Technologists

- Kenya Registered Nurses
- Public Health Officers
- Occupational Therapists
- Physiotherapists
- Pharmaceutical Technologists
- Radiographers

OR

- ii) Be holders of any degree in Biological or Medical Science from the University of Nairobi or equivalent qualification from a recognized University.
- iii) Holders of other qualifications deemed to be equivalent to (i) and (ii) above

### POSTGRADUATE PROGRAMMES

#### POSTGRADUATE DIPLOMA

Postgraduate diploma courses are intended for candidates who already have basic training at either degree or diploma level.

They aim to give the candidates a sound scientific foundation and practical skills in the particular discipline, so as to develop competent personnel who can practice independently.

Postgraduate diploma is currently offered in Psychiatric Social Work, Clinical Psychiatry, Psychotrauma, Substance Abuse, Control and Management of Sexually Transmitted Diseases, Clinical Audiology & Public Health Otology, Community Eye Health and Medical Diagnostic Ultrasounds.

## POSTGRADUATE DIPLOMA IN PSYCHIATRIC SOCIAL WORK

### 1.0 INTRODUCTION

The main objective of this programme is to develop competent personnel to address psychiatric social and related issues in Kenya, the surrounding geographical region and beyond.

### 2.0 ENTRY REQUIREMENTS

The following shall be eligible:-

Candidates with a first degree in Social Sciences from the University of Nairobi or any other institution approved by the Senate of the University of Nairobi.

## POSTGRADUATE DIPLOMA IN PSYCHOTRAUMA MANAGEMENT

### 1.0 INTRODUCTION

The main objective of this programme is to develop competent personnel to address psychotrauma related issues in Kenya, the surrounding geographical region and beyond.

### 2.0 ENTRY REQUIREMENTS

The following shall be eligible;

- i) Candidates with a minimum qualification of a first degree in human or veterinary medicine, pharmacy, dentistry or nursing from the University of Nairobi or any other institution approved by the Senate of the University of Nairobi.
- ii) Candidates with a first degree in Social Sciences; Psychology, Social Work, Sociology from the University of Nairobi or any other institution approved by the Senate of the University of Nairobi.

## POSTGRADUATE DIPLOMA IN PSYCHOACTIVE SUBSTANCE ABUSE

### 1.0 INTRODUCTION

The main objective of this programme is to develop competent personnel with knowledge and skills necessary to manage psychoactive substance use and trade in Kenya, adjacent countries and beyond.

### 2.0 ENTRY REQUIREMENTS

The following shall be eligible:

- i) Candidates with a degree in education, counseling, psychology, social work, sociology, criminology and theology from an institution approved by the Senate of the University of Nairobi.
- ii) Candidates with a degree in medicine, dentistry, pharmacy and nursing or an equivalent qualification from an institution approved by the Senate of the University of Nairobi.

## POSTGRADUATE DIPLOMA IN THE CONTROL AND MANAGEMENT OF SEXUALLY TRANSMITTED INFECTIONS BY DISTANCE LEARNING

### 1.0 INTRODUCTION

The challenges of the HIV/AIDS epidemic have caught public health officials and medical professionals unprepared. There is an acute shortage of health care providers trained in the prevention, control and management of sexually transmitted infections (STI), including HIV/AIDS.

AIDS patients require comprehensive care across a continuum. This includes clinical and nursing care, counseling and social support from hospital to home.

The doctor and other clinicians is a vital link in this continuum.

Effective counseling, for example, leads to a strong doctor-patient relationship, and makes all the difference in how patients accept their HIV status, how they lead their lives and approach sexual and other relationships. Furthermore, few patients can afford expensive antiretroviral drugs, yet it is a fact that many opportunistic infections can be treated adequately with standard drugs and thus prolong life in an affordable manner. In addition, AIDS control requires positive health promotion, and knowledge of medico-legal and social issues.

All these factors and more are important in good AIDS and STI management and form the basis for this unique Postgraduate Diploma now offered to doctors and other clinicians for the first time in Africa.

The Postgraduate Diploma in The Control and Management of Sexually Transmitted Infections by distance learning brings graduating doctors and other clinicians specialized knowledge and skills they need in order to handle the increasing number of sexually transmitted infections (STI) and HIV/AIDS patients in their daily medical practice.

Without sacrificing time away from their busy clinics, this postgraduate course enables doctors and other clinicians to gain up-to-date knowledge and skills in an area of growing public health importance; manage all aspects of sexually transmitted infections; specialize in HIV/AIDS management and control; study at a place of their own choice, time and pace within two years; and apply newly-acquired skills immediately to help patients with special problems, even as they go through the course.



## 2.0 ENTRY REQUIREMENTS

Applicants to the Postgraduate Diploma in the Management and Control of Sexually Transmitted Infections by Distance Learning must hold at least a first degree in a clinical area from the University of Nairobi or any institution recognized by the Senate of the University of Nairobi as being of comparable academic status

Holders of the following degrees shall be eligible for admission

- i) Bachelor of Medicine and Surgery (MBCHB.)
- ii) Bachelors of Dental Surgery (BDS)
- iii) Bachelor of Science in Nursing (BScN)

Applicants must be currently working as health care providers in either the private, non-governmental or public health sectors.

## MASTER OF MEDICINE

### 1.0 GENERAL REGULATIONS

- H.1** The degree of Master of Medicine of the University of Nairobi is currently offered in Medicine, Surgery, Paediatrics and Child Health, Obstetrics and Gynaecology, Ophthalmology, Anaesthesia, Diagnostic Radiology, Psychiatry, Human Pathology, Ear, Nose and Throat and Neurosurgery.
- H.2** The examination for the Master of Medicine shall be conducted by a Board of Examiners appointed by the Senate on the recommendation of the School of Medicine of the University of Nairobi. There shall be at least one external examiner in each subject, preferably from outside East Africa.
- H.3** Candidates must enter for the examination with the written approval of the Board of the School of Medicine of the University not less than six months (*or such other time as may be determined by the University before the date set for the examination on registration and the full amount of the examination fee shall be payable at this time*). In the case of MMed. Surgery the fee for the Primary Examination being paid at registration; the fee for the Final Examination being paid six months before the date set for the examination. Candidates withdrawing from the examination after the closing date for entry must do so in writing and may forfeit a proportion of the fee.
- H.4** Candidates must not submit themselves for examination on more than three consecutive occasions and thereafter only at such intervals as may be determined by the Board of the School of Medicine

- H.5** Candidates whose performance at any part of the examination is deemed to be below standard or shows no improvement over the previous performance, shall have their performance reviewed by the School of Medicine and a recommendation made to the Senate.
- H.6** Regulations for specific subjects will be found in the School Handbook.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN INTERNAL MEDICINE (MMED - INTERNAL MEDICINE)

### 1.0 INTRODUCTION

Since the introduction of training in master of medicine postgraduate programme (MMed- Internal Medicine) in 1973, new concepts and challenges have emerged in medicine. There is a growing demand for more skilled manpower to handle the new challenges in meeting the health needs of the community at large. The physician must be equipped with knowledge and skills to play a key role in attainment of the millennium development goals, and the Kenya vision 2030. The increasing awareness of both infectious and non-infectious diseases requires physicians who are both competent in interventions, to prevent and reduce the new threats to health at the community level, and skilled in advocacy, to influence health policies. Apart from clinical responsibilities, physicians are increasingly taking on management responsibilities which require skills in leadership and management. The traditional training in a tertiary institution like KNH does not provide the candidate with the opportunity to learn in an environment that they are likely to work in, and hence this opportunity should be afforded through a rotation at peripheral site.

The new changes in the curriculum will include a peripheral site rotation, elective term and accident and emergency rotation. A new course has been introduced in management and leadership and emphasis on documentation of competencies and skills in a log book which must be satisfactorily complete prior to graduation.

### 2.0 COURSE OBJECTIVES

- The objectives of the programme shall be to equip the candidate with the ability to:
- i) Demonstrate knowledge and skills in the management of medical conditions.
  - ii) Demonstrate competency in the diagnostic and therapeutic skills for ethical and effective patient care through application of relevant information to clinical practice.

- iii) Deliver highest quality care with integrity, honesty and compassion while exhibiting appropriate personal and interpersonal professional behaviour.
- iv) Contribute to development of new knowledge through high-quality research, develop and implement a strategy for self-learning, and facilitate learning of others

### 3.0 ENTRY REQUIREMENTS

- 3.1 The common regulations for admission to postgraduate degree courses of the University of Nairobi, will apply.
- 3.2 The applicant eligible for admission into the programme shall fulfill the following additional conditions:
  - 3.2.1. Be in possession of a medical degree obtained in an institution recognized by the University of Nairobi Senate
  - 3.2.2 Registrable in Kenya with the Medical Practitioners and Dentists Board (MPDB)
  - 3.2.3 Evidence of proficiency in English recognized by the University of Nairobi Senate example. TOEFEL
  - 3.2.4 Certificate of good conduct from the MPDB
  - 3.2.5 Obtain a valid professional indemnity cover during full period of training

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN ANAESTHESIOLOGY

### 1.0 INTRODUCTION

Anaesthesia is an essential service in modern medical practice and health delivery systems all over the world. It is one of the most important scientific discoveries in recent times and has revolutionized the practice of surgery and related subjects.

It was introduced in October 1846 in Massachusetts, in the United States of America. Since then, it has undergone a lot of changes and made it possible to get access to any part or cavity of the body safely while looking for disease, and come out safely. In recent times, its safety and reliability has been enhanced by the introduction of electronic monitoring equipment.

Anaesthesia is practiced hand-in-hand with critical care and pain relief services in most countries. Critical care medicine came into existence towards the end of

the Second World War when it was realized that war victims with multiple organ failure may benefit from temporary technical support while giving time for their failed organs to recover well enough to resume their normal physiological functions. In Kenya, both these services were in the past provided by non-physicians (clinical officers) and very few well trained physician anaesthetists.

The first critical care facility was started at the Infectious Diseases Hospital - IDH (now Mbagathi Hospital) for treatment of patients with bulbar poliomyelitis, using iron-lung ventilators. It is this rudimentary unit which was moved to its present site at ICU-KNH in 1972. It was developed to what it is with the technical and personnel help from Japan. It is now a fully functional unit with 21 beds.

The Department of Surgery developed and launched a postgraduate course for the Degree of Master of Medicine in Anaesthesia in 1978.

In this programme postgraduate students are trained in all aspects of a safe practice of Anaesthesia at par with similar courses in other medical specialties such as paediatrics, internal medicine and surgery and have to date graduated 140 local and foreign anaesthesiologists, some of whom have been lost through natural attrition and immigration leaving only 115 registered physician anaesthetists. Going by the Kenyan population of about 40 million, there is one physician anaesthetist catering for about 350,000 people. Currently there is no World Health Organisation recommendation although the government of Italy recommends 1:130,000.

A great majority of these physicians are concentrated in the big cities like Nairobi and Mombasa. The National Health Sector Strategic Plan 2005-2010 (Ministry of Health) recommends 3 physician anaesthetists in each Level 5 hospital. Currently there is only one and in some hospitals none, hence there is an acute shortage physician anaesthetists particularly in the outlying regions.

The revision from three to four years will allow longer clinical exposure in different surgical specialties and external rotations. This will also be in tandem with the regional training programmes and the recommendations of the external examiners. It will in effect meet the international standards for safe practice of anaesthesia adopted by the World Federation of Societies of Anaesthesiologists (WFSA) in 1992.

## 2.0 COURSE OBJECTIVES;

- i) To train anaesthesiologists with adequate knowledge, skills and professional attitudes essential for safe practice of anaesthesiology, critical care medicine and pain management.
- ii) To train anaesthesiologists with adequate knowledge in clinical problems encountered in surgery and medicine.

## 3.0 ENTRY REQUIREMENTS

**3.1.** The common regulations for admission to the Master of Medicine Degree of the University of Nairobi shall apply.

**3.2** An applicant shall be required to;

- 3.2.1** be holders of the Degree of Bachelor of Medicine and Bachelor of Surgery (MBChB) of the University of Nairobi or equivalent from a university recognized by the Senate.
- 3.2.2** be registered by the Medical Practitioners and Dentists Board of Kenya or any other regulatory body.
- 3.2.3** have passed a pre-entry interview organized by the Board of the School of Medicine.
- 3.2.4** have certificate of good standing from the regulatory body.
- 3.2.5** have letter of reference from two academic referees.
- 3.2.6** have a valid medical indemnity cover throughout the training period.
- 3.2.7** Foreign applicants shall provide certificate of proficiency in English and may be required by the school to appear for a pre-entry interview.

## MASTER OF SCIENCE IN CLINICAL PSYCHOLOGY

### 1.0 INTRODUCTION

The main objective of this programme is to develop competent personnel to meet the demands of clinical psychologists in the 'psychiatric team'. This will ensure effective and efficient care of the psychologically disordered in Kenya, the adjacent geographical region and beyond.

### 2.0 ENTRY REQUIREMENTS

The following shall be eligible:

- i) Candidates with a minimum qualification of a first degree in medicine, pharmacy, dentistry nursing and veterinary medicine from the University of

Nairobi or any other institution recognised by the Senate of the University of Nairobi.

- ii) Candidates with a minimum of an upper second class degree from the University of Nairobi (*or any other institution recognized by the senate of the University of Nairobi*) majoring in psychology, counseling psychology, sociology or social work.
- iii) Candidates with a minimum pass degree from the University of Nairobi (*or any other University recognized by the Senate of the University of Nairobi*), majoring in psychology, counseling psychology, sociology or social work provided they have acquired relevant work experience.
- iv) Candidates who have fulfilled entry requirements for a masters degree in any other department and on the recommendation of that department wish to register for a specific course unit.

## REGULATIONS AND SYLLABUS FOR MASTER OF SCIENCE IN HUMAN ANATOMY

### 1.0 ENTRY REQUIREMENTS

The common regulations for the Masters degrees in all faculties shall apply.

The following shall be eligible for admission:

- i) Holders of Bachelor of Science in Human Anatomy, Bachelor of Medicine and Bachelor of Surgery, Bachelor of Dental Surgery, Bachelor of Veterinary Medicine, Bachelor of Science in Nursing and Bachelor of Pharmacy
- ii) Holders of Bachelor of Science in Zoology with at least an upper second class honors; or a lower second class honors and a postgraduate diploma in a relevant field.
- iii) Holders of equivalent degrees from other Universities recognized by the University of Nairobi senate.

## MASTER OF SCIENCE IN CLINICAL CYTOLOGY (MSc. CYTOLOGY)

### 1.0 INTRODUCTION

The Master of Science in Clinical Cytology programme was mounted in the Department of Human pathology in 1996. Currently the Department is the only centre that offers this degree in the region. To date the program has produced over 25 graduates who are working with the Ministry of Health, Higher institutions

of learning and research organisations. Graduates of this program work hand in hand with pathologists, to provide the much needed rapid inexpensive cytological diagnosis and patient follow up. Clinical Cytology is a sub-speciality of pathology that provides early detection of disease. The most widely understood role of cytology is in pap smear, a screening testing developed in the early 20th century by Goerge Papanicolaou for cervical pathology. The field of cytopathology has grown to include needle aspiration techniques for many other tumors and pathologies. With increased prevalence of cancer, there is a growing demand for cytologists. Cytopathology has been refined by incooperation of advanced radiological techniques such as immunophenotyping and molecular diagnostic pathology. The revised curriculum has expanded the scope of knowledge and skills and will include immunophenotyping, forensic aspects of cytology, and molecular pathology. In addition cytologists are assuming laboratory leadership roles and the program has therefore included a leadership and management course unit.

The program has a major emphasis on practicals, mainly in applied Cytotechnology, molecular techniques and applied Cytomorphology. Therefore we have put in place several formative assessments to go with these practicals. The continuous assessment will account for 40% of the overall examination marks in each year.

## 2.0 COURSE OBJECTIVES

- i) Equip the learners with skills, knowledge and ability to offer clinical cytology services
- ii) Equip the learner with effective leadership/managerial and technical skills
- iii) Equip the learners with skills in undertaking research and training in cytopathology and capacity to translate research into policy and practice

## 2.0 ENTRY REQUIREMENTS:

The common regulations for the Master's degree of the University of Nairobi shall apply.

- 3.1 Applicants eligible for admission to the course shall fulfil the following conditions:
  - 3.1.1 Holder of a Bachelor of Medicine and Bachelor of Surgery University of Nairobi degrees (or equivalent as approved by Senate)
  - 3.1.2 Holder of a Bachelor of Dental Surgery degree or its equivalent
  - 3.1.3 Holder of a Bachelor of Medical Laboratory Sciences degree or its equivalent

- 3.2 Must provide evidence of proficiency in the English language from a recognized institution in the case of applicants whose language of instruction during the undergraduate course was not the English language.

## MASTER OF SCIENCE IN CLINICAL CHEMISTRY

### 1.0 INTRODUCTION

Clinical Chemistry or Chemical Pathology is a sub-speciality of pathology that comprises the study of metabolic processes in relation to their physiological and pathological changes in man and animals. For this study, the Clinical Chemist applies the techniques of analytical chemistry and biochemistry to obtain diagnostic and prognostic information about patients, and to investigate the evolution of disease and response to therapy. It is a discipline which is inseparable from modern medicine, and is implicated in fundamental clinical and pathophysiological research.

Many medical laboratories in the Eastern and Southern African region, including Kenya, are understaffed in the field of clinical chemistry.

The course aims to train medical and science graduates in the principles and practice of Clinical Chemistry. This will therefore develop individuals who are highly competent in the tools for diagnosing of diseases and thereby assist clinicians in effective diagnosis, treatment and follow up of patients.

### 2.0 COURSE OBJECTIVE

- i) Equip candidates with skills and ability to offer specialized Clinical Chemistry diagnostic laboratory services.
- ii) Develop personnel who can effectively manage laboratory personnel, equipment and reagents, and implant quality assurance programs relevant to clinical chemistry.
- iii) Develop personnel to undertake academic responsibility in research and teaching.

### 3.0 ENTRY REQUIREMENTS

The common regulations for Master's degree in all Faculties of the University of Nairobi shall apply.

- i) Holders of a Bachelor of Medicine and Surgery (MBChB.), Veterinary Medicine (BVM), Dental Surgery (BDS), Pharmacy (BPharm.) degree of the University of Nairobi or another University recognised by the Senate.

- ii) Holders of the following degrees, at upper second class honours, of the University of Nairobi, or equivalent qualifications from a University recognised by the Senate of the University of Nairobi in BSc. in Biochemistry, BSc. in Nursing, BSc. in Biomedical Laboratory Technologist and BSc. Anatomy

## MASTER OF SCIENCE IN MEDICAL MICROBIOLOGY

### 1.0 INTRODUCTION:

The most serious health problems in the world today, particularly in developing countries, are caused by bacteria, fungi, viruses and parasites. Most of these occur in communities with low socio-economic status living in overcrowded and poor hygienic conditions. Although it may be likely that such conditions commonly occur in developing countries, little has been done to educate people on modalities of diagnosis and control. Due to deterioration in health standards, infectious diseases caused by these microorganisms are now occurring with increased frequency in Kenya and many other countries within the African region. HIV/AIDS, malaria, tuberculosis and typhoid are among some of the diseases whose frequency has increased tremendously and which require control.

The Department of Medical Microbiology is a leader in research on infectious diseases particularly HIV/AIDS. This middle level degree programs is useful for the training of properly skilled personnel in the diagnosis and control of infectious diseases. The Master of Science degree in Medical Microbiology incorporates training in various methods of diagnosis and control of these diseases. Apart from focusing on understanding the biology, pathology, immunology, molecular biology, diagnosis, control and management of these diseases, the course prepares candidates for higher doctorate degrees in the field of microbiology. It is hoped that through training, there will be improved supply of skillfully trained manpower in the field of infectious diseases.

### 2.0 COURSE OBJECTIVES:

- i) To equip students with skills and ability to teach and carry out research in infectious diseases
- ii) To equip the students with skills required in the diagnosis and control of infectious diseases
- iii) To train at postgraduate level, students of human and veterinary medicine, and biological sciences on the current identification procedures of microorganisms which cause disease

### 3.0 ENTRY REQUIREMENTS:

The common regulations for the Master's degree in the Faculty of Medicine and those of the University of Nairobi shall apply.

Candidates eligible for admission into the Master of Science degree in Medical Microbiology shall have the following minimum qualifications:

- a) Holders of a Bachelor of Medicine and Surgery degree, Bachelors of Veterinary Medicine degree, Bachelor of Dental Surgery degree, Bachelor of Pharmacy degree and Bachelor of Nursing degree from the University of Nairobi, or any other institution recognized by the Senate of the University of Nairobi as being of comparable academic status.
- b) Holders of Bachelor of Science upper second class degree in zoology from the University of Nairobi or any other institution recognized by the University of Nairobi.
- c) Holders of Bachelor of Science lower second class degree in Zoology with at least three years working experience in a relevant field of microbiology or with a postgraduate diploma in Microbiology.
- d) Holders of Bachelor of Science pass degree in zoology with a postgraduate diploma in Microbiology and at least three years working experience in a relevant field of microbiology.
- e) In addition to provision of evidence of eligibility for admission, candidates may be required by the Faculty to appear for interview to determine their suitability for admission.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN OBSTETRICS AND GYNAECOLOGY (M.MED OBS/GYN)

### 1.0 INTRODUCTION

The Department has been training specialists in Obstetrics and Gynaecology since 1972. The output has been on average 10 to 15 specialists per year to date. Thus, the Department has not been able to meet the national demand for specialists in obstetrics and, having trained about 500 so far in spite of the rapidly growing population. The current estimate of obstetrician/gynaecologist-to-population ratio in Kenya is 1:140,000, which falls far short of the World Health Organization (WHO) recommended ratio of 1: 10,000. In addition, the establishment of new medical schools has increased the demand for obstetricians and gynaecologists required to provide quality training in the country. Thus, existing national gaps, emerging

reproductive health needs and advancing technological approaches have made it necessary to revise the existing curriculum for Master of Medicine in Obstetrics and Gynaecology. The curriculum was thus revised in 2014. The revised curriculum will also instil leadership qualities to the specialists for effective service delivery in alignment with the Millennium Development Goals and attainment of Vision 2030 of Kenya. The graduates will be expected to be self-motivated professionals, adaptable to changing technologies and able to embrace a holistic approach to reproductive health care and research. (Key areas that necessitated review included critical care in obstetrics, emerging ethical issues, and fast changing disease pattern.)

## 2.0 COURSE OBJECTIVES

The objectives of the programme shall be to:

- i) Impart in learners, knowledge, clinical skills, and competencies relevant to reproductive health care.
- ii) Equip the learners with requisite discipline, professional qualities, etiquette and ethics necessary for safe reproductive health practice.
- iii) Equip in the learners academic abilities for self-learning, critical thinking, research abilities and ability to translate research into practice and policy.
- iv) Equip the learners with skills to provide leadership and governance in provision of reproductive health services.

## 3.0 ENTRY REQUIREMENTS

- 3.1 Common Regulations for the Master Degree in the University of Nairobi shall apply.
- 3.2 Candidates eligible for admission into the programme shall fulfil the following conditions:
  - 3.2.1 Hold Bachelor of Medicine and Bachelor of Surgery (M.B.Ch.B.) degree of the University of Nairobi or an equivalent qualification from an institution recognised by the University of Nairobi Senate.
  - 3.2.2 Must have successfully completed internship and practised for at least one year as a medical officer with exposure to reproductive health practice in a recognised clinical or relevant research setting.
  - 3.2.3 Possess evidence of registration and retention as a Medical practitioner or eligibility to be licensed by the Kenya Medical Practitioners and Dentists Board for purposes of training.

- 3.2.4 Possess certificate of good conduct from the Kenya Medical Practitioners and Dentists Board or an equivalent authority from the country of origin.
- 3.2.5 Show evidence of proficiency in English language.
- 3.2.6 Provide evidence of professional indemnity cover and commit to renew annually during the period of training.

## OBSTETRICS AND GYNAECOLOGY ROTATION, MBCHB COURSE

### 1.0 INTRODUCTION

The rotation of undergraduate students through the department of obstetrics and gynaecology takes place during the 4<sup>th</sup> year of study (Level IV). The students are shared with the departments of paediatrics and child health and community health on a rotational basis- 1/3 each – over the academic year. Each rotation consists of 11 weeks during which period the students receive 2 weeks block of lectures and tutorials during the clinical exposure rotation. The students undergo continuous assessment which is composed of different components as below.

### 2.0 COURSE OBJECTIVES

1. To equip the student with the scientific basis of obstetrics and gynaecology.
2. To provide the student with basic practical skills in diagnosis and management of health and illness in obstetrics and gynaecology.
3. To inculcate in the student the appropriate ethical standards of basic obstetric and gynaecological practice.

### Assessment

Course assessment is continuous and summative. The following tools are used:

- a) Logbook of clinical experience in labour ward & labour ward theatre, antenatal/postnatal ward, antenatal clinic, acute gynaecology ward, cold gynaecology ward, gynaecology clinic, emergency gynaecology theatre, oncology, cold gynaecological theatre, laboratory, imaging department, FP clinic, infection prevention practices, maternal and perinatal morbidity and mortality meetings, acceptable professional conduct and HIV in reproductive health.
- b) Weekly essays
- c) Dissertation presentation
- d) Evaluation of attitude and professional conduct by the lectures/professors.
- e) End of term examination (MCQs and clinical).

## MASTER OF MEDICINE IN PSYCHIATRY (MMED. PSYCH.)

### 1.0 INTRODUCTION

The Master of Medicine degree course in Psychiatry is intended to train medically qualified doctors to master the practice of diagnosis, treatment and prevention of mental illness as well as giving them a sound scientific foundation to enable them to teach students (undergraduate and post graduate), and carry out original research. The emphasis in this course is on clinical and practical work and most of the teaching will be by “bed side” teaching in the wards during ward rounds and clinical case conference. The candidate who shall be a full time employee of the Hospital will be assigned clinical responsibility over a wide variety of patients and shall spend most of his/her working hours including night and weekend calls admitting, clerking, examining and treating patients under supervision by his/her teachers.

The lectures will mainly be introductory occupying not more than two hours of each working day. The course will be continuous from first to the third year. During this period the candidate will select a dissertation topic as he acquires knowledge and experience and will complete the dissertation during the final year.

### 2.0 ENTRY REQUIREMENTS

The candidate eligible for admission into the programme shall fulfil all three of the following conditions:

- i) Be in possession of a medical degree from the University of Nairobi or other institutions recognized by the University of Nairobi’s Senate and the degree should be registrable in Kenya.
- ii) Shall have completed at least one year of internship in a medical institution recognized by the University of Nairobi’s Senate.
- iii) Should have at least one year of clinical experience as a medical officer or equivalent in a hospital or institution recognized by the University of Nairobi’s Senate.

## MASTER OF MEDICINE IN OPHTHALMOLOGY

### 1.0 ENTRY REQUIREMENTS

The regulations for the Masters Degree in the University of Nairobi and the Faculty of Medicine shall apply.

Candidates eligible for admission into the Master of Medicine in Ophthalmology programme shall have the following qualifications and characteristics:

- i) Recognized MBCHB degree or its equivalent
- ii) Successfully completed internship
- iii) Must have stereoscopic vision
- iv) Registrable with the Medical Practitioners and Dentists Board of Kenya

In addition to provision of evidence of eligibility for admission, candidates may be required by the faculty to appear for an interview to determine their suitability for admission.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN PAEDIATRIC SURGERY

### INTRODUCTION

Kenya is a developing country with scarce financial and human resources. Currently the national paediatric surgeon to population ratio of 1:4000,000 falls far below the internationally recommended ratio of 1:300,000

The importance of paediatric health cannot be underestimated because on it is based the future physical and mental health of an individual. Indeed Articles 6 and 24 of the 1989 United Nations Convention on the Rights of the Child compels signatory governments, to guarantee children’s right to life, to create an environment that maximizes survival and development of children. In Kenya, various policy documents including the Millennium Development Goals and the Ministry of Health Strategic Plan are based on this premise. Likewise, Sections 42, 43 and 53 of the Constitution of Kenya state the right of every Kenyan child to health care. Thus the shortage of paediatric surgeons is a human resource gap that needs to be urgently addressed.

The Department of Surgery in line with its quality objectives through this programme will address the existing human recourse gaps in this discipline

### COURSE OBJECTIVES

1. Train a surgeon with knowledge, requisite skills and competencies in management of:
  - Paediatric surgical conditions
  - Emergency surgical conditions
2. Be able to translate research findings into clinical practice

## ENTRY REQUIREMENTS

Common Regulations for the Master of Medicine Degree in the University of Nairobi shall apply. Candidates eligible for admission into the course shall fulfil the following conditions;

- i) Hold a Bachelor of Medicine and Bachelor of Surgery (MBChB) degree of the University of Nairobi or equivalent qualification from an institution recognised by the University of Nairobi Senate.
- ii) Posses evidence of registration or eligibility to be licensed by Medical Practitioner's and Dentists Board in Kenya. Must also show evidence of retention on the list of the Medical Practitioner's and Dentists Board
- iii) Possess a certificate of good conduct from the Medical Practitioners and Dentists Board or any equivalent authority from the country of origin.
- iv) Show proficiency in use of the English language.
- v) Obtain a valid professional indemnity cover during the period of clinical training.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN THORACIC AND CARDIOVASCULAR SURGERY

### INTRODUCTION

Kenya's specialised surgical care needs have increased greatly over the years, and continue to do so. This refers to the many surgical specialties and many Kenyan patients have been sent abroad for such specialised care because of the shortage of skilled surgeons. Thoracic and cardiovascular surgery tops this list, with particular reference to cardiac surgery. The costs involved are exorbitant, but can be reduced drastically with locally available facilities and expertise.

The general doctor-population ratio in Kenya is 1:7,100 compared to the recommended World Health Organisation figure of 1:600. For the specialty of thoracic and cardiovascular surgery, the ratio is 1:3,500,000. The latter ratio is bound to get worse if no training programme is put in place, despite increased production of general doctors from Kenyan medical schools. This is not acceptable and denies the Kenyan population their bill of rights as contained in the constitution.

In many parts of the world, there now exist training programmes for Thoracic and Cardiovascular Surgery with the express objectives of improving and consolidating specialised patient care in this specialty. Kenya has the burden of disease necessary for mounting a similar programme locally. The Department of Surgery at the School

of Medicine of the University of Nairobi, however, is the only one Department in the country with the capacity and capability of mounting such a programme. This programme also fits well with the strategic and quality objectives of the department.

### COURSE OBJECTIVES:

- To produce Thoracic and Cardiovascular Surgeons with the requisite skills and competence in the overall care of the patient with general thoracic, cardiac and/or peripheral vascular problems.
- To produce Thoracic and Cardiovascular Surgeons able to meet the requirement of the World Health Organisation programme of Integrated Management for Essential and Emergency Surgical Care

## ENTRY REQUIREMENTS

Common Regulations for the Master of Medicine Degree in the University of Nairobi shall apply.

Candidates eligible for admission into the course shall fulfil the following conditions;

- i) Hold a basic medical degree i.e. Bachelor of Medicine and Bachelor of Surgery (MBChB) of the University of Nairobi or an equivalent qualification from an institution recognised by Senate.
- ii) Possess evidence of registration or eligibility to be licensed by Medical Practitioner's and Dentists Board in Kenya for purposes of training. Must also show evidence of retention on the list of the Medical Practitioner's and Dentists Board
- iii) Possess a certificate of good conduct from the Medical Practitioners and Dentists Board or any equivalent authority from the country of origin.
- iv) Show proficiency in use of the English language.
- v) Obtain a valid professional indemnity cover during the full period of training.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN PLASTIC, RECONSTRUCTIVE AND AESTHETIC SURGERY

### INTRODUCTION

Plastic Reconstructive and aesthetic surgery deals with replacement of lost body tissues, deformities resulting from trauma, radical surgery, inborn malformations and improvement of physical cosmetic appearance of an individual. Currently there is one plastic surgeon to six million Kenyans while the recommendation WHO ratios 1:100,000.



There is therefore an urgent need to institute a training programme for plastic surgeons locally to address this shortfall in order to guarantee the Kenyan constitutional right of access to free emergency medical treatment. The World Health Organisation Geneva Convention on the Rights of the Child to prompt alleviation and treatment of correctable congenital and acquired disabilities and provision of an environment conducive to future optimum physical and mental development.

This curriculum is in keeping with the strategic objectives of the Department of Surgery and the 2012 Strategic Objective of the Ministry of health seeks to address existing gaps in healthcare provision and training of trainers for Kenya and the larger Eastern African region

### COURSE OBJECTIVES

Train Plastic and Reconstructive Surgeons with knowledge, requisite skills and competencies in;

- management of emergency surgical conditions.
- management of disease conditions requiring plastic and reconstructive surgery.
- ability to translate research findings to clinical practice

### ENTRY REQUIREMENTS

Common Regulations for the Master of Medicine Degree in the University of Nairobi shall apply.

Candidates eligible for admission into the course shall fulfil the following conditions;

- i) Hold a Bachelor of Medicine and Bachelor of Surgery (MBChB) degree of the University of Nairobi or equivalent qualification from an institution recognised by the University of Nairobi Senate.
- ii) Possess evidence of registration or eligibility to be licensed by Medical Practitioner's and Dentists Board in Kenya. Must also show evidence of retention on the list of the Medical Practitioner's and Dentists Board
- iii) Possess a certificate of good conduct from the Kenya Medical Practitioners and Dentists Board or any equivalent authority from the country of origin.
- iv) Show proficiency in use of the English language.
- v) Possess a valid professional indemnity cover during the period of clinical training.

## REGULATION AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN GENERAL SURGERY

### INTRODUCTION

Recent developments and technological advances in surgery have made it necessary to review surgical postgraduate training worldwide in terms of content and duration. This has been effected in surgical training programs of North America, European Union, Canada, Australia, New Zealand and South Africa. Public medical service providers currently demand that Surgeons of all subspecialties should have basic knowledge and skills to treat any emergency life saving surgical conditions before onward referral to the relevant subspecialty. Current training programs are structured to offer a common foundation course in Surgical Pathology, Surgical Anatomy, Surgical Physiology and Principles of Surgery for all the surgical specialities during the first two years of training. Successful completion of the foundation course is necessary before proceeding to further specialist training in General Surgery, Otolaryngology-Head and Neck Surgery, Oral and Maxillofacial Surgery (3 years) and Neurosurgery (4 years). The current program for MMed Surgery of the University of Nairobi, which was compiled in 1972 has been revised to bring it in line with these global developments. This will benefit our clients, and make us competitive internationally.

### COURSE OBJECTIVES:

1. To produce a general surgeon with sufficient knowledge and skills in the basic foundations of surgery.
2. To produce a general surgeon with sufficient knowledge and skills in management of general surgical diseases.

### ENTRY REQUIREMENTS

The Common Regulations for the Master of Medicine Degree at the University shall apply. The candidate eligible for admission into the program shall fulfill the following conditions:

- i) Hold a basic medical degree i.e. Bachelor of Medicine and Bachelor of Surgery (MBChB) of the University of Nairobi, or an equivalent qualification from an institution recognized by Senate.
- ii) Candidates must possess evidence of registration or eligibility to be licensed by Medical Practitioners and Dentists Board for purposes of training.

The applicant will be required to have a valid Professional Indemnity cover during the period of training.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN UROLOGY (MMED. UROL)

### INTRODUCTION

Urology is a surgical specialty focusing on the urinary tracts, including the reproductive system of males. The urologist is a specialist, trained to diagnose, treat, and manage patients with urological disorders. Of the top 20 causes of deaths in Kenya, urological diseases are amongst the most common. In particular prostatic diseases are common cause of male morbidity. The WHO recommends 1 urologist per 250,000 people. In Kenya there are only 30 urologists forming a ratio of 1:1.3 million. Thus this glaring shortage of urologists needs to be addressed to meet the increased demand and advancing technologies in urological practices. The graduates of this programme will be expected to be self motivated professionals, adaptable to changing technologies and be able to embrace holistic approaches to urological care and research. This training of urologists will therefore meet the objectives of the Kenya Government National Health Sector Strategic Plan and the Kenya Vision 2030 of devolved Health Specialist services to the Counties. To achieve the above, the Department of surgery therefore proposes a training program of master of medicine in urology. The department has the capacity to mount this programme.

### COURSE OBJECTIVE

- i) To equip learners with knowledge, clinical skills and competencies relevant to urological care.
- ii) Requisite discipline, professional qualities, etiquette and ethics necessary for safe urological practice.
- iii) Skills in leadership and governance in urological practice.
- iv) Ability for self learning, critical thinking, research skills and translation of research findings into practice and policy.

### ENTRY REQUIREMENTS

The Common Regulations for the Master of Medicine Degree (Surgery) in The University of Nairobi shall apply.

The applicant eligible for admission into the programme shall fulfil all of the following conditions:

- i) Hold a minimum of Bachelor of Medicine and Bachelor of Surgery (MBChB) degree of the University of Nairobi or an equivalent recognized by The University of Nairobi Senate.

- ii) Possess evidence of registration or eligibility to be licensed by the Kenya Medical Practitioner's and Dentists Board and be in the retention list.
- iii) Possess a certificate of good conduct from the Medical Practitioners and Dentist Board or any equivalent authority from the country of origin.
- iv) Show proficiency in use of English language
- v) Posses a valid professional indemnity cover for the period of clinical training.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN OTORHINOLARYNGOLOGY-HEAD AND NECK SURGERY (MMED- ORL- H&NS)

### INTRODUCTION

During the last three decades there has been vast expansion in the domain of medical knowledge and technology including the Otolaryngologic specialty worldwide. Consequently many institutions have had to review their training structure and duration to accommodate these changes. In our set up we have also had to adapt to our unique socioeconomic environment and shortage of medical personnel

Our main client, the public medical service providers demand that any surgical specialist in their employment has to be able to provide preliminary general surgical services to deal with any emergency surgical condition or arrest any progression to adverse complications at his local hospital before referral to a relevant subspecialty facility. This review has consequently extended the Master of Medicine (MMed) Otolaryngology-Head and Neck Surgery program to last for five years instead of the previous three years. Other reasons for this extension include the fact that the MMed courses in all surgical disciplines are exit programmes which should produce a fully qualified surgeon capable of working on his own. There is also a need to bring this MMed program in line with similar programs in the world. Within the commonwealth countries, this has been achieved in Great Britain, Canada, Australia, New Zealand and South Africa. The same trends are evident in the European Union.

The revised program is structured to offer a common Foundation Course in the first two years in Surgical Pathology, Surgical Anatomy, Surgical Physiology, Research Methods, Epidemiology and Biostatistics and Principles and Practice of Surgery. Two course units in molecular biology and research methods, epidemiology and biostatistics have been added in the first year to equip the trainee for Otolaryngology-Head and Neck Surgery with skills for research and dissertation writing.

Successful completion of the Foundation Course is necessary before proceeding with further specialist training in Otorhinolaryngology-Head and Neck Surgery. The MMed Otolaryngology-Head and Neck Surgery Curriculum is based on these principles and will produce Otolaryngologists with the necessary skills to cope with the global challenges of modern-day Otorhinolaryngology practice. The program will therefore be highly marketable, be able to compete with similar programs in the world and allow free exchange of knowledge, students and learning materials.

### COURSE OBJECTIVES

- i) With sufficient skills in basic foundations of surgery
- ii) Capable of comprehensive management of medical and surgical problems in the field of Otorhinolaryngology -Head and Neck Surgery.
- iii) With skills and sufficient knowledge to carry out research relevant to the Otorhinolaryngology specialty
- iv) With globally acceptable standards of training

### ENTRY REGULATIONS

The Common Regulations for the Master of Medicine Degree in the University shall apply.

The candidates eligible for admission into the program shall fulfil the following conditions.

- i) The candidate should hold a minimum of Bachelor of Medicine and Bachelor of Surgery (MBChB) degree of the University of Nairobi or any basic medical degree from other institution recognised by The University of Nairobi Senate.
- ii) Degree should be registrable by the Medical Practitioner's and Dentists Board of Kenya for purposes of training and candidates must produce evidence of registration with the same board at commencement of training.
- iii) The sponsor will be responsible for professional indemnity cover for the trainees.
- iv) A candidate shall be expected to be of sound mental and physical health at all times while undertaking the program and to conduct himself in a manner befitting the medical profession. A candidate shall not be allowed to sit the examination if he does not meet these requirements and may be discontinued from the programme.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF MEDICINE IN NEUROSURGERY

### INTRODUCTION

The Master of Medicine in Neurosurgery program aims at enhancing the practice of Neurosurgery throughout Kenya and the East, Central and Southern African region by improving on patient management at the primary care level.

The knowledge and skills acquired during the training will consolidate the competency of the neurosurgeons and enable them to meet the above challenges.

The World Health Organization (WHO) recommends at least one Neurosurgeon for every 200,000 people. Kenya has a ratio of one neurosurgeon for every five million people. This program will therefore assist in training Neurosurgeons to provide services at the provincial level where, none are currently available and meet the objectives of The Kenya Government National Health Sector Strategic Plan to decentralize specialist services and improve health care. Graduates of the program will be engaged in the academic, public and private sector, International Health Organizations and other areas needing neurosurgical services. Recent technological advances in surgery have made it necessary to review surgical postgraduate training worldwide. This has been adopted in the Surgical Training programs of North America, Great Britain, Canada, Australia and South Africa. The programs are structured to offer a Common Foundation Course in Surgical Pathology, Surgical Anatomy, Surgical Physiology and Principles of Surgery for all the Surgical Specialties during the first two years of training. Successful completion of the Foundation Course is necessary before one can proceed to further specialist training in General Surgery, Otolaryngology, Oral and Maxillofacial Surgery (all 3 years) and Neurosurgery (4 years). The revised MMed Neurosurgery program will offer new courses in Molecular Biology and Research Methods, Biostatistics and Epidemiology. This will give the graduates a good foundation on the scientific basis of the practice of neurosurgery. The revised program will also produce graduates who will be conversant with the current advances in medical technology necessary for the safe practice of surgery.

### COURSE OBJECTIVES

- i) Train a neurosurgeon with satisfactory knowledge, clinical ability and surgical skills of management of surgical diseases of the nervous system.
- ii) Train a neurosurgeon with knowledge of principles of General Surgery necessary in the practice of neurosurgery and common surgical emergencies.

### ENTRY REQUIREMENTS

The Common Regulations for the Master of Medicine Degree at the University shall apply. The candidates eligible for admission into the program shall fulfil the following conditions:

- i) Hold a basic medical degree i.e. Bachelor of Medicine and Bachelor of Surgery (MBChB) of the University of Nairobi or equivalent qualification from an Institution recognised by Senate.
- ii) Degree should be registrable by the Medical Practitioner's and Dentists Board of Kenya for purposes of training and candidates must produce evidence of registration with the same board at commencement of training.
- iii) The applicant will be required to have a valid Professional Indemnity cover for the period of training.

### REGULATIONS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PhD) IN THE SCHOOL OF MEDICINE

1. The common regulations for the degree of Doctor of Philosophy in all Schools shall be applicable.
2. The following shall be eligible for registration for the degree of Doctor of Philosophy in the School of Medicine.
  - a) A Master of Science, Master of Medicine or Master of Public Health of the University of Nairobi.
  - b) A Bachelor of Medicine and Bachelor of Surgery or a Bachelor of Science or a Bachelor of Veterinary Medicine of the University of Nairobi.
  - c) A graduate of any other recognized University who has been admitted by the Senate to the status of one of the degrees in either (a), (b).
3. A candidate for the degree shall be required to pursue study or research on some subject connected with medical science at a clinical or pre-clinical or pre-clinical level.

### REGULATIONS FOR THE DEGREE OF DOCTOR OF MEDICINE (M.D.) IN THE SCHOOL OF MEDICINE

1. A candidate shall possess a bachelor's degree in medicine and surgery of the University of Nairobi or an equivalent qualification in medicine which is recognised for the purpose of registration by the Senate on the advice of the Board of the School of Medicine.
2. An intending candidate shall be required to produce evidence of his competence to work for the degree. The Senate may decline to admit as a candidate for the degree any person whose previous academic attainment are, in its opinion, not sufficiently high to warrant such admission.
3. A candidate shall register by submitting the title of his proposed M.D. thesis and evidence of his qualifications to the Director of the Graduate School.
  - 3.1 Registration shall not be earlier than two years after his graduation to bachelor's status or its equivalent.
  - 3.2 The thesis must be submitted not less than one year, or more than six years after registration.
  - 3.3 At least six months before the thesis is to be presented, a candidate shall give notice in writing to the Director of the Graduate School, submitting at the same time the proposed title and an outline of the plan and general scope of the work.
4. The Senate on the recommendation of the School Board, shall appoint for each thesis at least three examiners, one of whom shall be an examiner external to the University.
5. Every thesis must be submitted in triplicate and must be accompanied by a declaration on the part of the candidate, that the thesis has not been submitted for a degree of any other university, and that the contents of thesis are the original work of the candidate. All three copies of the thesis shall remain the property of the University.
6. A thesis submitted for the degree must be satisfactory as regards presentation and be worthy of publication; it must also include a full bibliography of the material, whether published or otherwise used in its preparation as regards format, it must conform with the "Regulations for the Submission of Thesis of the University of Nairobi".
7. No thesis shall be accepted which does not make a distinct contributions to the knowledge or understanding of the subject and does not afford evidence of capacity of original thought.

8. The candidate will be required to defend his thesis, in person, before any two of the examiners sitting together.
9. The examiners shall submit a joint report on the thesis and oral examination and make a recommendation on the award of the degree, or otherwise, to the Senate. The Senate may on the recommendation of the examiners, award the degree with distinction.
10. In cases where the Senate recommends that the degree should not be granted, the candidate may be required to revise any of the research work or the thesis for resubmission not earlier than six months and not later than 18 months from the date of the first examination.
11. The graduate, having the M.D. Degree may publish elsewhere any part or parts of his thesis, or otherwise describe the work done for it, provided that he states that the work was done as part of the requirements for an M.D. Degree, University of Nairobi.

Regulations for the Degree of Doctor of Medicine (M.D.) in the School will be found in the School Handbook.

Details on specific admission requirements of the school, credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the School.

*Please contact:*

The Dean, School of Medicine

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# SCHOOL OF PUBLIC HEALTH

**Director of the School:** Dr. Faith M. Thuita, BEd, (KU), MSc, PhD, (Nairobi)

Following approval of University of Nairobi Senate in August, 2010, The School of Public Health was formally established in September, 2010 with the appointment of a Director, four Thematic Heads were appointed in October, 2010 and the School was officially launched on 22<sup>nd</sup> February, 2011 by the Vice-Chancellor.

The School is made up of four Thematic Units which are mandated to develop and offer courses as follows.

## 1. EPIDEMIOLOGY AND BIOSTATISTICS

- i) Epidemiology
- ii) Biostatistics and Computing
- iii) Population Sciences
- iv) Research Methods and Methodology

## 2. HEALTH CARE SYSTEM AND POLICY DEVELOPMENT

- i) Health Planning and Policy Development
- ii) Health Services Administration & Evaluation
- iii) Primary Health Care
- iv) Health Economics
- v) Global Health Diplomacy

## 3. DISEASE PREVENTION, CONTROL & HEALTH PROMOTION

- i) Communicable and Non Communicable Disease Prevention and Control
- ii) Family Health
- iii) Nutrition
- iv) Environmental Health
- v) Occupational and Industrial Health and Safety

## 4. COMMUNITY HEALTH SCIENCES

- i) Social Sciences & Health
- ii) Health Promotion & Communication

The School teaches both undergraduate Bachelor of Medicine and Bachelor of Surgery (MBChB) and postgraduate Master of Public Health (MPH) and Master of Science in Health Systems Management (MScHSM) courses also offers PhD in Public Health.

### BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBChB)

#### HCH 200: MBChB YEAR II COURSES - COMMUNITY HEALTH (270 HRS)

- i) Biostatistics
- ii) Communicable Disease Control
- iii) Demography
- iv) Environmental Health
- v) Epidemiology
- vi) Health Education
- vii) Health Economics
- viii) Medical Sociology
- ix) Primary Health Care (PHC)
- x) Maternal, Child Health & Family Health
- xi) Occupation Health and Safety
- xii) Nutrition

#### HCH 500: MBChB YEAR V COURSES - COMMUNITY HEALTH (585 HRS)

The same courses continue to be taught during Year V. However, in addition, 4 weeks of the 11 weeks term one are spent in clerkship (General Programme and Health Centre Practice) based in a particular rural community.

### MASTER OF PUBLIC HEALTH (MPH)

#### 1.0 INTRODUCTION

This is a two year programme leading to award of the Master of Public Health (MPH) degree. The main objective of this course is to offer a multidisciplinary postgraduate course in order to train experts capable of meeting the emerging challenges in the field of public health.

#### 2.0 COURSE OBJECTIVES:

This is a two year programme leading to award of the Master of Public Health (MPH) degree. The main objective of this course is to offer a multidisciplinary postgraduate course in order to train experts capable of meeting the emerging challenges in the field of public health.

On completion of the course the students should be able to:

- Apply a multidisciplinary approach to assessment of public health issues and health care delivery;
- Provide leadership in the practice of public health, conduct research and provide consultative services to the community.

### 3.0 ENTRY REQUIREMENT

The course admits students with a background in medical, dental, veterinary, nursing and allied sciences as well as holders of a first degree in a discipline closely related to public health and medicine degree in environmental health, sociology, nutrition, demography, statistics, economics, planning, administration and anthropology, education and communication.

- 3.1** The common regulations for the Master's Degree in all faculties of the University of Nairobi shall apply.
- 3.2** The following shall be eligible for admission into the programme.
- 3.2.1** Holders of any of the following degrees, Bachelor of Medicine and Surgery (MBChB), Bachelor of Dental Science (BDS), Bachelor of Nursing Sciences (BScN), Bachelor of Pharmacy (B.Pharm.), Bachelor of Veterinary Medicine (BVM), Bachelor of Education and Communication (BEC) of the University of Nairobi or a degree from any other institution recognised by the University of Nairobi Senate and at least one year of post-registration experience in a medical or other health related field.
- 3.2.2** Holders of a first degree from the University of Nairobi in a discipline closely related to public health and medicine including an upper second class honours degree in environmental health, sociology, nutrition, demography, statistics, economics, planning, administration and anthropology, who in addition have relevant and adequate practical experience of not less than two years.
- 3.2.3** Holders of Bachelor of Science degree of lower second class in the discipline mentioned in 3.2.1 or 3.2.2 with relevant Post Graduate Diploma or three years relevant experience.
- 3.2.4** Holders of equivalent qualifications to those in 3.2.1, 3.2.2 or 3.2.3 recognized by the University of Nairobi Senate.

## MASTER OF SCIENCE IN HEALTH SYSTEMS MANAGEMENT (MSChSM)

### 1.0 INTRODUCTION

This is a two year programme leading to award of the Master of Science in Health Systems Management (MSChSM) degree. The training course is designed to provide an environment that helps the applicant develop and build their capacity to manage health systems in a diverse and dynamic environment.

### 2.0. OBJECTIVE

This is a two year programme leading to award of the Master of Science in Health Systems Management (MSChSM) degree.

- i) The training course is designed to provide an environment that helps the applicant develop and build their capacity to manage health systems in a diverse and dynamic environment.
- ii) Equip students with the necessary knowledge and skills needed to plan, manage and evaluate health systems.
- iii) Train students capable of leading teams, aligning resources to improve health services delivery and strengthening critical health systems for improved health outcomes.
- iv) Prepare students to generate and use information for timely, evidence-based decisions for effective and efficient management of organizations and influencing policy
- v) To produce students able to link and integrate diverse departments and communicate effectively with relevant stakeholders

### 3.0. ENTRY REQUIREMENTS

- 3.1** Holders of Bachelor of Medicine and Surgery (MBChB), Bachelor of Dental Sciences (BDS), Bachelor of Nursing Sciences (BSc.), Bachelor of Pharmacy (B.Pharm.) or holders of first degree in health related disciplines.
- 3.1.1.** The common regulations for the Master's Degree of the University of Nairobi shall apply.
- 3.2.** The following will be eligible for admission into the course.
- 3.2.1.** Holders of:
- Bachelor of Medicine and Surgery (MBChB)
  - Bachelor of Dental Science (BDS)
  - Bachelor of Nursing Sciences (BSc)
  - Bachelor of Pharmacy (BPharm) or equivalent degree from a University recognized by the University of Nairobi Senate.

- 3.2.2.** Holders of a first degree in health related disciplines of upper second class or above from a University recognized by the University of Nairobi Senate.
- 3.2.3.** Holders of a first degree in 3.2.2. of lower second class with relevant Post Graduate Diploma
- 3.2.4.** In addition to the academic qualifications above all an applicant must have a minimum of two years working experience

## PHD PROGRAMME IN PUBIC HEALTH

The programme is offered by course work and thesis. Regulations of the University of Nairobi on enrolment, supervision and examination shall apply. Applicants MUST have a first degree and a Master degree in health related discipline. The applicant will in addition show evidence of have completed graduate training in research methodology, biostatistics and epidemiology and if the applicant has deficiency in meeting the PhD admission criteria, the applicant will be required to clear the prerequisites.

In addition to teaching of the above courses, the School teaches and coordinates the following common undergraduate course offered under the board of Common Undergraduate courses.

- CCS 010 HIV/AIDS course

### STAFF LIST

#### Professor

Wang'ombe, J.K., BA, MA, PhD, (Wales)  
 Mutuku A. Mwanthi, BSc, (Washburn, Kansas), MSEH, (Tennessee), PhD, (Texas)  
 Olenja, J.M., BA, (Nairobi), MPhil, PhD, (Cambridge)

#### Associate Professor

Bukusi, E.A., BS, MBChB, MMed, (Nairobi), MPH, PhD, (Washington)

#### Senior Lecturer

Ongore, D., MBChB, MPH, (Nairobi), PhD, (Liverpool)  
 Nyabola, L., BSc, MSc, (Nairobi), MS, (Harvard), DipEpid, (McGill)  
 Thuita, F.M., BEd, (KU), MSc, PhD, (Nairobi)

#### Lecturer

Ayah, R., MBChB, (Nairobi), MSc, (London), PhD (*Candidate*)  
 Muriithi, P.J., BDS, MPH, (Nairobi), PhD (*Candidate*)  
 Atela, M., BA, (Moi), MSc, (Copenhagen), MPhil, PhD, (Cambridge)  
 Njeru, E.K., BSc, (Nairobi), MSc, (California)  
 Mweu, M.M., BVM, (Nairobi), PGDip (LSTM), MSc, (RVC, London), PhD, (Copenhagen)  
 Njoroge, PK., MBChB, MPH, (Nairobi), PhD (*Candidate*)  
 Kinoti, M.K., BEd, (Nairobi), MSc, (Belgium), PhD (*Candidate*)  
 Opiyo, R.O., BEd, (KU), MSc, PhD, (Nairobi)  
 Olewe, T.H.A.M., MBChB, MPH, (Nairobi)  
 Kinaro, H.K., BCom, (Jabalpur), BSc Nursing, (Chamberlain), MSc, (Amherst), MPH, (Massachusetts), PhD, (Walden)

Details on specific admission requirements of the school, credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the School.

*Please contact:*

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# SCHOOL OF NURSING SCIENCES

**Director:** Miriam C.A. Wagoro, M.C.A., BScN, MScN, (Nairobi), PhD, (Cape Town)

## REGULATIONS AND SYLLABUS FOR THE BACHELOR OF SCIENCE DEGREE IN NURSING (BScN)

### 1.0 INTRODUCTION

This is an integrated programme to develop an adequately educated and self-directing professional nurse who is prepared to provide leadership in Nursing Practice, Administration, and Education. The graduate will be expected to carry out Research and Publication. He/she should also be able to function effectively in a variety of settings where the sick are cared for and the health of individuals, families and communities is promoted and maintained.

The graduates should be able to demonstrate clinical competence in areas of nursing practice and be equipped for flexibility in employment.

The programme prepares graduates who can lead a productive life as individuals and professional persons. They should demonstrate an educational basis upon which post-graduate studies for further specialization as clinician, educator, administrator or researcher in nursing may be built. The graduates of this programme should be eligible for post-graduate work at any recognized University. They should also be registrable with the Nursing Council of Kenya and be capable of functioning universally.

### Aim

To prepare nurse clinicians, educators, administrators and researchers capable of providing leadership in difference fields of nursing.

### 2.0. COURSE OBJECTIVES

The graduate should be able to:

- 2.2.1. Recognize the physical, social and psychological factors inherent in illness and their effect on the patient/client, family and the community.
- 2.2.2. Plan, direct, provide, co-ordinate and evaluate nursing care based on understanding of scientific principles.
- 2.2.3. Identify patient/client, family and community needs.
- 2.2.4. Demonstrate clinical competence in specialised areas of nursing.
- 2.2.5. Evaluate his/her knowledge and performance in the light of changing health and nursing trends.
- 2.2.6. Develop and implement relevant educational and community health Programmes.
- 2.2.7. Demonstrate an educational basis upon which postgraduate studies for further specialization as clinician, educator, administrator or researcher in nursing may be built.
- 2.2.8. Conduct research in nursing and publish findings

### 3.0 ENTRY REQUIREMENTS

- 3.1. Candidates for admission must have satisfied the University's defined admission criteria of a C+ aggregate in Kenya Certificate of Secondary Education (KCSE) or equivalent level of education.
- 3.2. Eligibility for consideration for admission into the BSc. Nursing degree programme in the School of Nursing Sciences shall be governed by the following minimum admission requirements:
  - 3.2.1. **Kenya Certificate of Secondary Education (KCSE):** A minimum C+ grade pass will be mandatory in each of the cluster subjects shown below.

- Chemistry	- Physical Sciences
- Biology or	- Biological Sciences
- Physics/Maths	- Maths
- English/Kiswahili	- English/Kiswahili
  - 3.2.2. **Kenya Advanced Certificate of Education (KACE):** 2 Principal Passes in Science Subjects and a subsidiary pass in

- Biology	- Principal
- Chemistry	- Principal
- Physics/Maths	- Subsidiary
  - 3.2.3. **Diploma Holders in Medical Sciences:** Minimum 'O' level division II KCE with credit passes in Biology, Chemistry and Physics or Physical Sciences and Mathematics, or C+ (plus) Mean Grade in KCSE with an average cluster weight of 32 Points (mean B-) in relevant subjects in addition to a credit pass in Nursing or other relevant professional qualifications from Kenya Medical Training College or a recognized Medical Training Institution

**3.2.4.** Holders of any degree in Biological Sciences from University of Nairobi or equivalent qualification from a recognized university.

**3.2.5.** Holders of other qualifications deemed to be equivalent.

## REGULATIONS AND SYLLABUS FOR UPGRADING DIPLOMA LEVEL NURSES TO THE BACHELOR OF SCIENCE DEGREE IN NURSING (BScN)

### 1.0 INTRODUCTION

The course is designed to upgrade the Registered Nurse diploma holder, to the Bachelor of Science in Nursing (BScN) level with the aim of enabling her/him to develop in-depth understanding of emerging and advanced issues in the nursing profession. The dynamic nature of health care requires nurses with sound scientific base, managerial and research skills. These competencies coupled with creativity, critical thinking and clinical reasoning skills are essential for effective health care delivery in diverse settings.

#### Justification

The Diploma programme for Registered Nurses covers a total of 4664 hours out of which 3516 are spent in acquiring laboratory and clinical skills in hospitals and community health settings through an apprentice system. The major competency gaps and short falls in scope and depth that the upgrading programme aims to bridge include Biological, Social, Health and Nursing theoretical bases. Other areas not fully are critical thinking, clinical reasoning, professional judgment and informed decision making which are essential for effective practice.

The proposed syllabus will therefore enhance the nurse's critical understanding of emerging concepts, principles and theories related to health care delivery and nursing practice.

### 2.0 COURSE OBJECTIVES

#### 2.1 General Objective

To provide the learner with a basis for developing scientific knowledge, skills and techniques which facilitate in-depth understanding of both current and emerging issues related to nursing practice and health care delivery system in general.

### 2.2 Specific Objectives

The learner will acquire appropriate knowledge, skills and attitudes so as to be able to:

- 2.2.1.** Recognize the physical, social and psychological factors inherent in illness and their effect on the patient/client, family and the community.
- 2.2.2** Plan, direct, provide, co-ordinate and evaluate nursing care based on understanding of scientific principles.
- 2.2.3** Identify patient/client, family and community needs.
- 2.2.4** Demonstrate clinical competence in areas of nursing.
- 2.2.5** Evaluate his/her knowledge and performance in the light of changing health and nursing trends.
- 2.2.6** Develop and implement relevant educational and community health Programmes.
- 2.2.7** Demonstrate an educational basis upon which postgraduate studies for further specialization as clinician, educator, administrator or researcher in nursing may be built.
- 2.2.8** Conduct research in nursing and publish findings

### 3.0 ENTRY REQUIREMENTS

Candidates for admission into the programme must be holders of a diploma of Kenya Registered Nurse from a recognized institution and a C plain in the Kenya Certificate of Secondary Education (KCSE) or its equivalent and a pass in English.

## DIPLOMA RENAL NURSING

### 1.0 INTRODUCTION

The diploma course in Renal Nursing is designed to equip practicing Registered nurses with knowledge, skills and attitudes in renal nursing in order to participate in provision of quality renal nursing care to individuals, families and communities.

#### Justification for Diploma course in renal Nursing

Chronic Kidney Diseases are the 12<sup>th</sup> cause of death and the 17<sup>th</sup> cause of disability, (WHO report, 2002). In Kenya, it is currently estimated that 10,000 people develop end stage renal disease out of which only 1,000 (10%) access health care. The constitution of Kenya, 2010 Article 43 (1)(a) grants every citizen the right to access

quality health care. Building the capacity of nurses will facilitate access to quality health capacity building at county level for service provision. This falls within the mandate of East African Kidney Institute and school of Nursing Sciences. The Diploma program aims at bringing the capacity gaps by training nurses to enable them offer collaborative management to clients suffering from renal disorders.

## 2.0 COURSE OBJECTIVES

The objectives of this programme is to prepare a nurse who should be able to:-

- 2.1 Perform renal health assessment and make clinical decision.
- 2.2 Apply biological mechanisms as a basis for managing the disorders of renal and related systems.
- 2.3 Manage patients requiring different renal treatment modalities.
- 2.4 Apply knowledge of pharmacotherapy to manage patients requiring/undergoing kidney transplantation.
- 2.4 Provide psychosocial care to patients with renal disorders.
- 2.5 Apply principles of management in the provision of renal care services.

## 3.0 ENTRY REQUIREMENTS

- 3.1 The common regulations for Diploma programmes in the University of Nairobi and the School of Nursing shall apply.
- 3.2 Diploma in Nursing (KRN/M, KRCHN). The candidate must be registrable by a professional body of Nursing; or
- 3.3 Holders of Bachelor of Science Degree in Nursing from the University of Nairobi or an equivalent qualification approved by Senate. The applicants should be registrable by a professional body of Nursing, and
- 3.4 Must have a minimum of Two years of Nursing practice experience, and
- 3.5 At least C plain at KCSE or equivalent
- 3.6 Equivalent qualifications from the four East Africa Community Countries including Uganda, Tanzania, Burundi and Rwanda shall be considered

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING (MScN)

### 1.0 INTRODUCTION

Quality health care is essential in the promotion of health, prevention of and management of diseases. The nurses play a major role in the health care delivery. The nursing profession is in need of nurses trained at higher levels in order to take up positions in clinical practice, research, management and teaching. The School of Nursing Sciences started offering the Bachelor of Science Degree in Nursing (BScN) in 1992. To date, over 200 nurses have graduated with a BScN and they need avenues to progress to higher educational levels. Those available in other parts of Africa are too few to absorb all the graduates requiring higher degrees. There is therefore a great need for such a programme. The School, therefore, aims to train nurses with appropriate skills in specialised areas within the nursing profession.

### 2.0 COURSE OBJECTIVES

- i) Train skilled personnel specialised in clinical areas of Nursing;
- ii) Equip students with skills and ability to teach and carry out research in Nursing;
- iii) Equip students with managerial and administrative skills to enable them undertake professional leadership positions in their areas of specialization.

### 3.0 ENTRY REQUIREMENTS

- i) The common regulations for the Masters Degree in the University of Nairobi and the Faculty shall apply.
- ii) Holders of Bachelor of Science Degree in Nursing from the University of Nairobi or an equivalent qualification approved by Senate. The applicants should be registrable by a professional body of Nursing.
- iii) Holders of any first degree in a related field recognised by the Senate of the University of Nairobi as being of comparable academic status, in addition to holding a higher or Advanced Diploma in Nursing. The candidate must be registrable by a professional body of Nursing.

<b>STAFF LIST</b>	
<b>Professor</b>	Karani, A.K., BScN, (AWU), MA, (Wheaton, USA), PhD, (Nairobi)
<b>Associate Professor</b>	Omoni, G.M., PGDip, (Curtin), MSc, (Leeds Metropolitan), PhD, (Curtin), MCH
<b>Thematic Unit of Medical Surgical Nursing</b>	
<b>Head of Unit</b>	Kimani, S.T., BScN, MSc, PhD, (Nairobi)
<b>Senior Lecturer:</b>	Kimani, S.T., BScN, MSc, PhD, (Nairobi) Muiva, M.N., BScN, (AWU), MSc, (Tampere), MEd, (Nairobi), PhD, (Nairobi) Chege, M.N., BScN, (AWU), MPH, (KU), PhD, (MKU) Mwaura, J., BScN, MSc, Clin. Psych, (Nairobi), PhD, (MKU)
<b>Lecturer</b>	Wagoro, M.C.A., BScN, MScN, (Nairobi), PhD, (Cape Town) Ong'any, A., BScN, MSc.Cl. Psych, (Nairobi) Kirui, A.C., BScN, MSc, (Nairobi) Oyoo, E.O., MScN, (Manchester), DAN, (Nairobi) Omondi, L.A., BScN, MSc, (Nairobi) Ngaruiya, G., BScN, (AKU), MScN, (Nairobi) Maina, D., BSc Nursing, (Moi), MScN, (Nairobi) Mageto, I., BScN, (Evansville), MScN, PhD, (Nairobi)

<b>Thematic Unit of Community Health Nursing</b>	
<b>Head of Unit</b>	Wakasiaka, S., MPH (KU), DAN, (Nairobi), PhD, (KU)
<b>Senior Lecturer:</b>	Mirie, W., BSc, (Coll. of St. Elizabeth, USA), MSc, (Nairobi), PhD, (Nova South Eastern, USA) Wakasiaka, S., MPH (KU), DAN, (Nairobi), PhD, (KU) Odero, T.M.A., BScN, (AWU), Pg. Dip., MSc, (Leeds Metropolitan, UK)
<b>Lecturer:</b>	Odhiambo, E.A., BScN, (AWU), MSc, (Liverpool), Dip. Comm, Amref (McMaster, Canada) Rajula, R.E., BScN, (AWU), DAN, (Nairobi), MA, MPH & MBA, (AWU), Advanced Healthcare Mgt, (Strathmore/ISE Barcelona) Kamau, M.N., BScN, (Nairobi), MPH, (KU) Mati'angi, M., BScN, (Nairobi), MPH, (GLUK)
<b>Thematic Unit of Education AND Administration Nursing</b>	
<b>Head of Unit</b>	Kivuti-Bitok, L.W., BScN, (Nairobi), MA, (Roskilde), PhD, (Nairobi)
<b>Professor:</b>	Karani, A.K., BScN, (AWU), MA, (Wheaton, USA), PhD, (Nairobi)

<b>Senior Lecturer:</b>	Kivuti-Bitok, L.W., BScN, (Nairobi), MA, (Roskilde), PhD, (Nairobi)
<b>Lecturer:</b>	Matheka, E.K., BScN, (Nairobi), MPH, (KU), PhD, (Nairobi)
<b>Thematic Unit of Obstetric/Midwifery Nursing</b>	
<b>Unit Head</b>	Inyama, H.K., BScN, MSc, (Nairobi)
<b>Associate Professor</b>	Omoni, G.M., PGDip, (Curtin), MSc, (Leeds Metropolitan), PhD, (Curtin), MCH
<b>Senior Lecturer:</b>	Omuga, B.O., MBChB, MMed, Obs/Gyn, (Nairobi)
<b>Lecturer:</b>	Oyieke, J.R., BPsych, MCouns.Psych, (USIU), DAN, (Nairobi), PhD, (AWU) Inyama, H.K., BScN, MSc, (Nairobi) Ongeso, A., BScN, MScN, (Moi) Cheptum, J., BScN, (Moi), MSc, (KU)

Details on specific admission requirements of the school, credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the School.

Please contact:

The Director, School of Nursing Sciences  
Email: nursing@uonbi.ac.ke or info-chs@uonbi.ac.ke

# SCHOOL OF PHARMACY

**Dean of the School:** Dr. Kipruto Arap Sinei, BPharm, (Nairobi), PhD, (Bath - England)

**Assistant Registrar:** Patrick N. Mwangi, BEd, MBA

The School of Pharmacy is located at Kenyatta National Hospital. Pharmacy training in the University of Nairobi was established in 1995. Before that time, it was a Department in the Faculty of Medicine comprising of 4 sections namely; Pharmacognosy, Pharmacology, Pharmaceutical Chemistry and Pharmaceutics.

The history of the School of Pharmacy can be traced back from 1974 when the Department of Pharmacy was created. Whereas the clinical departments were situated within Kenyatta National Hospital, the pre-clinical departments were housed at the Chiromo Campus.

## REVISED REGULATIONS AND SYLLABUS FOR THE DEGREE OF BACHELOR OF PHARMACY (B.PHARM.)

### 1.0 INTRODUCTION

In the last two decades Kenya has put in place strategies to strengthen the pharmacy workforce through government policies aimed at increased training; improvement of distribution; creating an enabling working environment; recognition and financial and non-financial incentives; and strengthening regulation. Despite these efforts, the ratio of pharmacists to the population remains far below the recommended by the World Health Organization. In the last few decades, the role of the pharmacist globally has been shifting more towards patient care and the majority of the workforce in Kenya is in the community pharmacy sector. Therefore, though Kenya is the largest manufacturer of pharmaceutical products in the Common Market for Eastern and Southern Africa (COMESA), supplying half of the region's market, the pharmaceutical industry employs few pharmacists. Besides, there are still relatively few pharmacists in the public sector and the rural-urban pharmacists' distribution is very low. There have been rapid changes in global health environment requiring greater clinical orientation, leadership and management roles for pharmacists in addition to international technological advances in pharmaceutical industrial sector and Information Technology driven delivery of pharmaceutical services. In recognition of this, there is need to train graduates who can serve in all the pharmaceutical sectors and who are adaptive enough to continue with knowledge

growth throughout their professional practice as they are engaged nationally, regionally and internationally.

The current pharmacy curriculum runs over four years each of 44 weeks. After administering this curriculum for fourteen years, it has been found to be too strenuous because it does not allow students to rest. In addition, it leaves little time for teaching staff to do research and to improve their academic input. Through consultation with students and other stakeholders, it has been found necessary to revise the programme duration to five years, each lasting 36 weeks in order to enhance objectivity and place greater emphasis on acquisition of skills and competencies. This will ensure that both the lecturers and students are more productive. The distribution of hours to various subjects has been rationalized, taking into consideration both horizontal and vertical integration. The preclinical subjects have been spread over two years, as opposed to the current one year. The common undergraduate courses are well adapted within the curriculum with emphasis on relevance to the pharmacy profession, other health professions and the interaction with the patient. On completion of the course, the graduates will be expected to be competent in the provision of quality pharmaceutical services.

### 2.0 COURSE OBJECTIVES

The objectives of the course are to produce pharmacy graduates with appropriate knowledge, attitudes and skills to:

1. Contribute to improved healthcare applying innovative and structured patient oriented services and strategies.
2. Provide technical skills and leadership in pharmaceutical Industry including quality assurance of medicinal products for human and veterinary use;
3. Provide leadership in formulation and implementation of regulatory policies that enhance oversight and service delivery in the manufacture, licensing and distribution of human and veterinary pharmaceutical products;
4. Apply self-learning, critical appraisal and research techniques in problem solving in pharmaceutical practice and research.
5. Provide leadership and managerial services in the delivery of health care systems.

### 3.0 ENTRY REQUIREMENTS

**3.1** Applicants must have satisfied the University's general admission criteria of a mean grade C+ (plus) in Kenya Certificate of Secondary Education (K.C.S.E). A minimum C+ (plus) grade pass will be mandatory in each of the cluster subjects.

**3.2** The cluster subjects for Bachelor of Pharmacy in K.C.S.E are as follows:

- |                     |                                  |
|---------------------|----------------------------------|
| <b>a)</b> Biology   | <b>c)</b> Physics or Mathematics |
| <b>b)</b> Chemistry | <b>d)</b> English or Kiswahili   |

**3.3** Eligibility for consideration for admission into the Module II Bachelor of Pharmacy programme shall be governed by the following admission requirements, outlined under each category:

#### 3.3.1 KCSE (8.4.4 System of Education)

Applicants must have obtained an average cluster weight of B- in the subjects shown below provided that no subject in this cluster shall have a grade below C+:

##### Alternative A

- Chemistry
- Biology
- Maths/Physics
- English/Kiswahili

##### Alternative B

- Biological sciences
- Mathematics
- Physical Sciences
- English/Kiswahili

#### 3.3.2 G.C.E/A-Level

A minimum of two Principal passes in Biology and Chemistry and a subsidiary pass or credit pass at 'O' level in physics or Mathematics.

- |                     |              |
|---------------------|--------------|
| Biology             | - Principal  |
| Chemistry           | - Principal  |
| Physics/Mathematics | - Subsidiary |
| General paper       | - Pass       |

#### 3.3.3 International Baccalaureate (IB) Diploma

**3.3.3.1** C (plain) mean grade in KCSE with an average cluster weight of 32 points in relevant subjects as shown in (3.2) above.

**3.3.3.2** In addition, a pass of not less than 5 at IB level in each of the KCSE subjects shown in (3.2) above.

#### 3.3.4 Diploma in Biological Sciences

**3.3.4.1** A minimum O level Division II with credit passes in the following subjects: Biology, Chemistry, Physics/Mathematics

- |                          |                       |
|--------------------------|-----------------------|
| or                       | or                    |
| - Biology                | - Biological Sciences |
| - Physics with Chemistry | - Physical Sciences   |
| - Mathematics            | - Mathematics         |

or  
C mean grade in KCSE with an average cluster weight of 32 points in relevant subjects as shown in (3.2) above,

**3.3.4.2** In addition, they should have a credit pass in the following qualifications from the Kenya Medical Training College or any other recognized training institution. Diploma in:

- Pharmaceutical Technology
- Laboratory Technology
- Clinical Medicine
- Radiology
- Basic and/or Advanced Nursing
- Public Health/Environment Health
- Dental Sciences

**3.3.5** Holders of any degree in Biological Sciences from the University of Nairobi or equivalent qualifications from a recognized University.

**3.3.6** Holders of other qualifications deemed to be equivalent to (2.1 - 2.4) mentioned above.

Applicants from non-English speaking countries must sit and pass English assessment examination set and administered by institutions recognized by University of Nairobi Senate.

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF PHARMACY IN CLINICAL PHARMACY

### 1.0 INTRODUCTION

Pharmacy services in recent years have expanded significantly beyond drug preparation and distribution. These evolutionary changes are expressed as greater involvement by pharmacists in drug related decision making and patient care activities. The World Health Organization through the concept of pharmaceutical care sees a pharmacist as an integral member of the patient care team. The discipline of Clinical pharmacy is responsible for ensuring the safe, appropriate, and cost-effective use of drugs in patients, through the application of specialized skills and knowledge. The Master of Pharmacy in Clinical Pharmacy programme aims at instilling knowledge and skills that will enhance the provision of pharmaceutical care at patient level.

## 2. THE OBJECTIVE

To produce a professional with sufficient knowledge, skills and attitudes to be able to

- i) Integrate knowledge of the biological, biomedical, and pharmaceutical sciences with clinical information to make decisions regarding rational drug therapy.
- ii) Assess patients in order to monitor, evaluate, design, recommend and implement patient specific pharmacotherapeutic plans.

## 3.0 ENTRY REQUIREMENTS

The common regulations for the Masters degrees in all faculties of the University of Nairobi shall apply.

- 3.1 The following shall be eligible for admission into the programme.
- 3.2 Holders of Bachelor of Pharmacy degree of the University of Nairobi or any other equivalent degree from an institution recognized by the University of Nairobi Senate.
- 3.3 The degree should be registrable by the Pharmacy and Poisons Board of Kenya.

## 4.0 COURSE OUTLINE

### 4.1 Core Courses

Code	Title
UMP 625	Clinical Pharmacy and Patient Health Assessment
UMP 626	Pathophysiology
UMP 627	Biopharmaceutics and Clinical Pharmacokinetics
UMP 628	Drug Information and Health Care Management

UMP 629	Advanced Therapeutics I
UMP 630	Advanced Therapeutics II
UMP 631	Analytical Methods in Clinical Pharmacy
UMP 632	Clinical Toxicology
UMP 633	Research Methodology and Biostatistics
<b>4.2 Major Electives</b>	
UMP 636	Pharmaceutical Care in Internal Medicine
UMP 637	Paediatric Pharmacy
UMP 638	Pharmaceutical care of surgical patients
UMP 639	Obstetric and Gynecologic Pharmacy
<b>4.3 Minor Electives</b>	
UMP 642	Oral Health Pharmacy
UMP 643	Mental Health and Psychiatric Pharmacy
UMP 644	Emergency and Critical Care Pharmacy
UMP 645	Pharmacy Practice in Oncology
UMP 646	Infectious Diseases Pharmacotherapy
UMP 649	Dissertation

## REGULATIONS AND SYLLABUS FOR THE POSTGRADUATE DIPLOMA IN PHARMACEUTICAL ANALYSIS

### 1.0 INTRODUCTION

Over the last few decades, Kenya has experienced a rapid growth in the pharmaceutical manufacturing industry, with more than thirty drug manufacturing

industries producing drugs for local use and for export. In addition, Kenya imports a large proportion of the drugs used within the country with majority of them being generics. This calls for vigilance in the analytical aspects of drug regulation and requires hands on specialists who can ensure the quality of drugs in the market.

The country currently is experiencing a shortage of pharmaceutical analysts with less than twenty pharmaceutical analysts with the relevant postgraduate training in place. The postgraduate diploma in Pharmaceutical Analysis is designed to build capacity in the field of quality assurance and quality control of pharmaceuticals and related products. On completion of the course, the graduates will be expected to be competent in modern analytical techniques, in monitoring of pharmaceutical and related manufacturing processes and in drug regulatory affairs.

### 2.0 COURSE OBJECTIVES

To provide students with:

- a) The knowledge and skills to carry out quality assurance of pharmaceuticals and related products.
- b) The knowledge and skills required in the quality control of pharmaceuticals and related products.
- c) The technical skills and ability to carry out basic research in pharmaceutical analysis.
- d) The knowledge and skills in drug manufacture, drug registration and drug distribution regulations.

### 3.0 ENTRY REQUIREMENTS

**3.1** The common regulations governing postgraduate diploma in the University of Nairobi shall apply.

**3.2** The minimum requirements into the postgraduate diploma in Pharmaceutical Analysis are:

**3.2.1** Holders of a Bachelor of Pharmacy degree from the University of Nairobi, or any other institution recognized by the University of Nairobi Senate.

**3.2.2** Holders of a Bachelor of Science Degree in Chemistry (Analytical Chemistry option), Biochemistry or Food Science Technology of second-class honours from the University of Nairobi or from other institutions recognized by the University of Nairobi Senate with at least two years working experience in a pharmaceutical laboratory.

**3.2.3** Holders of a Bachelor of Science Degree in Chemistry (Analytical Chemistry option), Biochemistry or Food Science Technology of pass qualification from the University of Nairobi or from other institutions recognized by the University of Nairobi Senate with at least three years working experience in a pharmaceutical laboratory.

## REGULATIONS AND SYLLABUS FOR THE DEGREE IN MASTER OF PHARMACY IN PHARMACEUTICAL ANALYSIS

### 1.0 INTRODUCTION

Pharmaceutical analysis is one of the key specialties in the field of pharmacy practice that focuses on quality of drugs at the production, registration, circulation and utilization stages. The profession is practised under the guidance of the International Committee on Harmonization (ICH) quality guidelines for safety and efficacy of drugs, Drug Regulatory Authority (DRA) policies and Good Manufacturing Practices (GMP) regulations. Other pharmacy and medical disciplines rely heavily on quality drugs as essential tools of practice.

### 2.0 ENTRY REQUIREMENTS

#### Minimum Entry Requirements

**3.1.1** The common regulations governing Masters degrees programmes of the University of Nairobi shall apply.

**3.1.2** A candidate eligible for admission into the programme shall fulfil the following conditions:

**3.1.2.1** Be in possession of a Bachelor of Pharmacy degree or equivalent from the University of Nairobi or any other institution recognized by the Senate.

**3.1.2.2** Be registered by the Pharmacy and Poisons Board of Kenya.

**3.1.2.3** An international candidate shall be required to show proof of registration as a pharmacist in the country of origin and obtain a temporary practice license from the Pharmacy and Poisons Board.

### 3.0 COURSE OUTLINE

YEAR I	
Course Code	Course Title
UPA 601	Thermal and electrochemical methods
UPA 602	Biological methods
UPA 603	Chromatographic methods
UPA 604	Spectroscopic methods
UPA 605	Research methods and biostatistics
UPA 606	Drug design and synthesis
UPA 607	Drug information and computer applications
UPA 608	Pharmaceutical manufacturing practices
UPA 609	Leadership and management in healthcare
UPA 610	Industry placement
YEAR II	
UPA 720	Thesis

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER SCIENCE IN PHARMACOGNOSY AND COMPLEMENTARY MEDICINE

### 1.0 INTRODUCTION

**1)** Complementary medicine is currently the fastest growing form of health care worldwide in both developed and developing countries.

**2)** It is estimated by World Health Organization that a big percentage of world population still relies on complementary medicine to meet its health needs.



- 3) In many countries complementary medicine is gaining popularity as a mainstream therapy.
- 4) Today, complementary medicines are being employed worldwide in a variety of health care settings and as home remedies. Safety, efficacy, quality, access and rational use of this form of health care are issues of concern.
- 5) The Masters in Science in Pharmacognosy and Complementary Medicine is intended to produce a pool of highly trained personnel who will be involved in research and development, policy aspects of medicines from nature and complementary medicine.
- 6) Graduates of this course will be in demand in research institutions, pharmaceutical firms dealing with phytomedicines, teaching at Universities and tertiary institutions or as practitioners in traditional medicine.

## 2.0 COURSE OBJECTIVES

- 1) To equip the student with knowledge necessary to engage in research and development on medicines from natural resources and complementary medicines.
- 2) To train skilled manpower with knowledge necessary to ensure quality, safety and efficacy of complementary medicines.
- 3) To enable the student to formulate and implement policies on complementary medicine, genetic resources and traditional medical knowledge.
- 4) Provide the candidates with adequate knowledge and skills to practice in different sectors of complementary medicine.

## 3.0 ENTRY REQUIREMENTS

- 1) The common Regulations for Masters Degrees of the University of Nairobi shall apply.
- 2) The following shall be eligible for admission into the programme with any of the following minimum qualification from University of Nairobi:
  - 3) Holders of Bachelor of Pharmacy, Bachelor of Medicine and Bachelor of Surgery, Bachelor of Science in Nursing, Bachelor of Dental Surgery and Bachelor of Veterinary Medicine.
  - 4) Holders of at least Upper Second Class Bachelor of Science degree in biological sciences.
  - 5) Holders of Lower Second class degree in the areas specified in 4 above plus at least two years relevant research experience or academic work.
  - 6) Holders of a pass degree in the areas specified in 4 above plus a postgraduate diploma in the relevant areas.
  - 7) Holders of any equivalent qualifications from institutions recognized by the University of Nairobi Senate.

### STAFF LIST

#### Professor:

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## DEPARTMENT OF PHARMACEUTICAL CHEMISTRY

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**Principal Technologist:**

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## DEPARTMENT OF PHARMACEUTICS AND PHARMACY PRACTICE

### REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF PHARMACY IN INDUSTRIAL PHARMACY

#### 1.0. INTRODUCTION

Industrial pharmacy is the discipline which involves the manufacture of pharmaceutical products to be used for treatment and prevention of disease conditions in humans and animals. Like most developing countries, Kenya has until recently relied primarily on imported pharmaceuticals and growth in this sector has only been witnessed in recent times. The process of manufacture of pharmaceuticals is highly complex in nature and requires different skills in order to produce quality products which meet international standards. There are many steps involved in the whole process which requires the involvement of personnel trained in the relevant areas.

Kenya embraces the principles laid out by the United Nations and the World Health Organization

in the Millennium Development Goals and also envisions industrialization by 2030. In order to meet these targets, the country must train the relevant professionals to spearhead industrialization. The pharmaceutical industry is one of the major segments which is at the moment not fully tapped and lacks sufficiently trained personnel at the advanced levels.

The Master’s degree programme in Industrial Pharmacy is intended to produce a pool of personnel who will be involved in research, drug development and manufacture of quality pharmaceutical products. The country’s pharmaceutical industry needs to expand so as to meet both domestic and regional demands. Currently, students interested in pursuing postgraduate training in Industrial Pharmacy must look overseas for training options because they do not exist in Kenya.

#### 2.0 OBJECTIVES

- a) To provide the students having a background in Pharmacy with advanced theoretical and practical knowledge in the pharmaceutical industry.
- b) To equip the students with advanced contemporary knowledge on the principles of pharmaceutical design, discovery, research and development.
- c) To equip the students with enhanced skills and knowledge on how to design, produce and evaluate the manufacture of pharmaceuticals.
- d) To provide the students with advanced knowledge so that they are able to relate to the required international and national regulations and ethics to the manufacture of medicines

#### 3.0 ENTRY REQUIREMENTS

- 3.1 The common regulations for the Masters degrees of the University of Nairobi shall apply.
- 3.2 The following shall be eligible for admission into the programme:  
 Holders of Bachelor of Pharmacy degree of the University of Nairobi or any other equivalent degree from an institution recognized by the University of Nairobi Senate.

#### FIRST YEAR

##### First Semester

Code	Title
UIP 701	Pharmaceutical Microbiology
UIP 702	Good Manufacturing Practices and Quality Assurance
UIP 703	Pharmaceutical Technology
UIP 704	Biopharmaceutics and Pharmacokinetics

##### Second Semester

UIP 705	Drugs Stability: Principles and Practices
UIP 706	Cosmetic Science and Technology
UIP 707	Drug Innovation and Biotechnology
UIP 708	Research Methodology and Biostatistics

#### SECOND YEAR

##### First Semester - Electives

UIP 709	Genomics and Bioinformatics
UIP 710	Radiopharmaceuticals
UIP 711	Clinical Research Process in the Pharmaceutical Industry

First and Second Semester	
UIP 712	Industrial Placemen
First and Second Semester	
UIP 750	Dissertation

STAFF LIST
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 Mugendi, G.A., BPharm, MPharm, (Nairobi)

#### Tutorial Fellow:

Ososo, R.W.

#### Principal Technologist:

Gathu, L.W., OD, HND (MLT), (Kenya Poly). Cert. Pharm Anal. (KU. Leuven), MSc (KU)

molecular pharmacology techniques are applicable in investigations of therapies (*both old and new*) for non-communicable conditions including: coagulopathies, diabetes and metabolic syndromes, cardiovascular, renal diseases, oncological and neuro-psychiatric diseases among others. In Kenya, a specialized cadre of scientists equipped with skills in molecular pharmacology is therefore needed to contribute to innovative research that would lead to discovery of new medicines or advance the understanding of biological phenomena. Graduates of the molecular pharmacology programme can find employment in research, academia and clinical settings. In the clinical settings they would be involved in:

- i) monitoring drug resistance and response to drug therapy using molecular markers;
- ii) clinical pharmacogenetics, in the identification of biomarkers of abnormal drug metabolism and toxicity;
- iii) the development and application of gene therapy and
- iv) evaluation of therapeutic equivalence or bioequivalence of generic biologicals.

## 2.0 COURSE OBJECTIVES

- 2.1.1 To equip students with knowledge and skills to read and evaluate scientific literature and to engage in independent and original research in basic molecular pharmacology and its application in drug discovery and drug development.
- 2.1.2 To equip the student with adequate knowledge and skills to translate the basic knowledge in molecular pharmacology to clinical situations and its application in disease diagnosis and management.

## DEPARTMENT OF PHARMACOLOGY AND PHARMACOGNOSY

### REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF SCIENCE IN MOLECULAR PHARMACOLOGY (MSc. MOL.Pharmacol.)

#### 1.0 INTRODUCTION AND JUSTIFICATION

Molecular pharmacology is a discipline concerned with the study of bio-molecular mechanisms that underpin how drugs interact with living systems to alter function. It is a relatively new discipline that focuses on cellular and molecular levels as sites of drug action and function. Recent advances in the knowledge of cell and gene regulation, hormonal action, cell trafficking, inflammation and other bio-molecular processes have spawned the development of novel drugs for use in the therapy of a variety of diseases. The disease burden of developing countries such as Kenya is heavy. Coupled to this is the high cost of treatment. Typical contributors to this scenario include emerging infectious diseases and rapid development of resistance to current drug therapies. This calls for concerted efforts to find home grown solutions. Knowledge of molecular pharmacology is crucial for understanding and participating in research on the genetic and biochemical mechanisms that underlie drug resistance in diseases such as tuberculosis, malaria and Human Immunodeficiency Virus (HIV) infection. Moreover

### 3.0 ENTRY REQUIREMENTS

- 3.1** The common regulations for the Masters Degrees of the University of Nairobi shall apply.
- 3.2** Applicants eligible for admission into the programme shall have the following minimum qualifications.
- i)** Holders of: Bachelor of Pharmacy, Bachelor of Veterinary Medicine, Bachelor of Medicine and Surgery, Bachelor of Dental Surgery and Bachelor of Science in Nursing.
  - ii)** Holders of at least Upper Second class Bachelor of Science in Physiology or Biochemistry.
  - iii)** Holders of a Lower Second Class Bachelor of Science degree in the disciplines mentioned in 2.2(ii) above plus a Post Graduate Diploma in a relevant area or three years research experience.
  - iv)** Holders of equivalent qualifications from institutions recognised by the Senate of the University of Nairobi

#### STAFF LIST

##### Chairman of Department

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 Mukungu, N.A., BPharm, MSc, (Nairobi)  
 Karumi, E.W., BPharm, MSc, (Nairobi)

##### Tutorial Fellow:

Mulaku, M.N., BPharm, (Nairobi), MSc, (London)

##### Principal Technologist

Munenge, R.W., HND, (Kenya Polytechnic), MPH (K.U.)

## REGULATIONS AND SYLLABUS FOR THE DEGREE OF MASTER OF PHARMACY IN PHARMACOEPIDEMIOLOGY AND PHARMACOVIGILANCE [M.Pharm. (EPIVIGIL)]

### 1.0 INTRODUCTION AND JUSTIFICATION

Pharmacoepidemiology is the study of the patterns and determinants of drug use in human populations. It entails comparison of pharmaceutical interventions for their cost-effectiveness with the aim of optimizing allocation of resources to the most effective and least costly interventions. It involves the application of epidemiological approaches to study drug utilization, effectiveness, value and safety in human populations. It borrows from both clinical pharmacology and epidemiology. Pharmacovigilance, on the other hand, is the science of post-marketing surveillance, quality assurance and total quality management of pharmaceutical health delivery.

Health delivery in third world countries is hampered by inadequate financial resources and planning. In many health care systems financial resources are wasted on irrational and inappropriate use of drugs. This problem therefore emphasizes the need to train professionals in pharmacoepidemiology and pharmacovigilance so as to promote rational use of medicines, improve therapeutic interventions and to promote effective utilization of limited financial resources.

Specialists qualified in pharmacoepidemiology and pharmacovigilance find employment in academia, research institutions, drug regulatory agencies, health related non-governmental institutions, consumer agencies, national, regional and international health organizations and pharmaceutical industries. They are involved in:-

- i) Identification of the patterns and determinants of drug use in a community.
- ii) Providing information to regional, national and hospital Formulary and Therapeutic committees for the purposes of drug selection and development of therapeutic guidelines.
- iii) Improving therapeutic interventions and rational drug use.
- iv) Strategic planning for the management of disease.
- v) Provision of technical support and leadership in pharmacovigilance and consumer protection issues.
- vi) Provision of technical support in therapeutic risk management

## 2.0 COURSE OBJECTIVES

- 2.1.1 To enhance knowledge and skills of the graduate to read and evaluate scientific literature and be able to conduct independent and original research.
- 2.1.2 To enhance knowledge and skills of the graduates so as to provide specialized services in specific areas of pharmacoepidemiology and pharmacovigilance.

- 2.1.3 To train graduates with skills, knowledge and competence so as to optimize resource utilization for the most effective and least costly interventions.

## 3.0 ENTRY REQUIREMENTS

- 3.1 The Common Rules and Regulations for Masters Degrees of the University of Nairobi shall apply.
  - 3.1.1 Applicants eligible for admission into the programme shall have the following minimum qualifications.
  - 3.1.2 Holders of Bachelor of Pharmacy degree of the University of Nairobi.
  - 3.1.3 Registered with the Pharmacy and Poisons Board or with the relevant regulatory body.
  - 3.1.4 Holders of any equivalent qualification from institutions recognized by Senate of the University of Nairobi.

Details on specific admission requirements of the school, credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the School.

*Please contact:*  
The Dean, School of Pharmacy  
Tel: 0204915007; Cellphone: 0771946687  
Email: dean-pharmacy@uonbi.ac.ke

# EAST AFRICAN KIDNEY INSTITUTE (EAKI)

**Director of Institute:** Prof. Peter Mungai Ngugi, MBChB, M.MED.(Surg.), Cert. Urol (RCS), FCS (ECSA)  
**Deputy Director:** Dr. Anthony Omolo Were, MBChB, M.MED. (Internal Medicine), FISN(R)

## INTRODUCTION

The East African Kidney Institute is situated at Kenyatta National Hospital Campus. It was officially launched in 2014. The need to locally train renal care providers for Kenya and the East African region has been recognized. The University of Nairobi has established the East African Kidney Institute (EAKI) which is a centre of excellence funded by the Africa Development Bank (ADB). This is in conjunction with the Ministry of Health and is based at the College of Health Sciences University of Nairobi and the Kenyatta National Hospital. This centre will have capacity and facilities to train nephrologists and urologists for this region.

The following Academic programmes have been approved by the Senate.

1. Fellowship in Clinical Nephrology
2. Fellowship in Paediatric Nephrology
3. Master of Science in Renal Nursing
4. Diploma in Renal Nursing

## 1. REGULATIONS FOR FELLOWSHIP IN CLINICAL NEPHROLOGY

### 1.0 INTRODUCTION

Facilities and human resource required for specialized care of CKD patients are still limited in the East African region. There are about 40 trained nephrologists in the region, serving a population of about 145 million people. 31 of these nephrologists live in Kenya and are concentrated in major towns and cities. The nephrologists to population ratio is far below the WHO desirable of 1 per 200,000 population.

The Kenya Government has plans to provide specialized renal care services at all the 47 administrative counties in the country. However it is becoming increasingly difficult to get opportunities for 'hands-on' training in clinical nephrology, in developed countries for students from developing countries.

Providing local opportunity for training, will address the urgent need for an increase in capacity building at county and regional level for renal service provision. This is in line with the Constitution of Kenya, 2010 Article 43(1)(a), and in tandem with the Social Pillar (Pillar 2) of the Kenya Vision 2030 with the objective of improving the overall livelihood of Kenyans by providing an efficient and high quality healthcare system with the best of standards. This goal is also envisaged in Goal 3 of the United Nations Sustainable Development Goals (SDG).

### 1.1 COURSE OBJECTIVES

The objectives of the program are to equip a student with:

- i) Knowledge, clinical and practical skills and attitudes relevant to the practice of specialized clinical nephrology.
- ii) Knowledge and skills to support self-learning, training, performance of research, and scientific dissemination of findings.
- iii) Leadership and management skills.

### 1.2 ENTRY REQUIREMENTS

Individuals eligible for admission into the program shall in addition fulfil the following conditions:

- 1.2.1 Hold a Masters of Medicine degree in Internal Medicine of the University of Nairobi or an equivalent qualification from an institution recognized by the University of Nairobi Senate.
- 1.2.2 Be registrable with Kenya's Medical Practitioners and Dentists Board.

- 1.2.3** Applicants whose medium of communication for their basic medical degree was not English, will be required to show evidence of proficiency in English language.
- 1.2.4** Possess a valid professional indemnity cover during the full period of training.
- 1.2.5** Be bound to conduct themselves with integrity in a manner befitting the medical profession and in accordance with the following documents.
- i)** Manual on Code of Conduct and medical ethics.
  - ii)** Public officer's Ethic Act, 2003 Part III general Code of Conduct and Ethics.

## 2. FELLOWSHIP IN PAEDIATRIC NEPHROLOGY

### 2.0 INTRODUCTION

The Fellowship in Paediatric Nephrology is a Clinical Fellowship Degree Program intended to provide paediatricians with world class highly specialized clinical training of international standard. The course shall equip them with advanced knowledge and specialized clinical skills in the evaluation and management of paediatric and adolescent renal disease, as well as leadership and management capabilities in the design and delivery of paediatric and adolescent renal services.

### 2.1 COURSE OBJECTIVES

By the end of the clinical fellowship degree, the fellow should be able to:

- i)** Apply advanced knowledge and specialized skill in the evaluation, diagnosis and comprehensive management of renal diseases in children and adolescents.

- ii)** Demonstrate clear understanding of the design, organization, implementation, monitoring and evaluation of health units that provide care for children and adolescents with renal disease.
- iii)** Analyse and utilize emerging evidence and available resources to address and advocate for quality care for children and adolescents with renal conditions, taking note of local priorities to inform policy.
- iv)** Design and implement research in the field of paediatric nephrology.
- v)** Provide leadership, mentorship and continuing education to the health professionals involved in delivery of care to children and adolescents with renal conditions.

### 2.2 ENTRY REQUIREMENTS

**2.2.1** The common admissions regulations for Graduate Clinical Fellowship Programs at the University of Nairobi shall apply.

**2.2.2** Individuals eligible for admission into the program shall fulfil the following conditions:

- i)** Hold a Masters of Medicine Degree in Paediatrics and Child Health of the University of Nairobi or an equivalent qualification from an institution recognized by the University of Nairobi Senate.
- ii)** Should have completed one year after qualifying with a Master's of Medicine Degree in Paediatrics.
- iii)** Possess evidence of registration, or eligibility for registration with Kenya's Medical Practitioners and Dentists Board.
- iv)** Applicants whose medium of communication for their basic medical degree is not English, will be required to

- show evidence of proficiency in English from an institution approved by the University of Nairobi.
- v)** Pass the interview process. International applicants who qualify for admission and who for reasons acceptable to the recruitment committee are unable to present themselves in-person for the interviews, shall undergo an interview through available media.
- vi)** Possess a valid professional indemnity cover during the full period of training.
- vii)** Possess a certificate of good standing from the Medical Practitioners and Dentists Board or equivalent authority from the country of origin for International applicants.
- viii)** Be bound to conduct themselves with integrity in a manner befitting the medical profession and in accordance with the following documents.
  - a)** Manual on Code of Conduct and Medical Ethics.
  - b)** Public officer's Ethic Act, 2003 Part III general Code of Conduct and Ethics

## 3. MASTER OF SCIENCE IN RENAL NURSING

### 3.1 INTRODUCTION

The Master in Renal Nursing is intended to build capacity for nurses in the provision of renal care and expand infrastructure for renal care facilities. The course aimed at matching global standards and respond to the societal needs premised on the national development agenda for high skilled manpower, the vision 2030 social pillar and sustainable development goals (SDGs). aims to prepare post graduate (MScN) nurses to offer care and leadership in renal care services

### 3.2 COURSE OBJECTIVES

The objectives of the program are to equip a student with:-

- 3.2.1 Provision of professional renal nursing care within the legal and ethical contexts to an individual, family and community across life span.
- 3.2.2 Clinical competence in provision of quality and effective nursing care to clients undergoing renal replacement therapy
- 3.2.3 Competency in the manipulation and care of equipment used in renal practice in all settings
- 3.2.4 Provide leadership in management of renal and other units that provide specialized renal care to individual patients, families and community.

### 3.3 ENTRY REQUIREMENTS

Individuals eligible for admission into the program shall in addition fulfil the following conditions:

- i) Hold a Bachelor of Science Degree in Nursing from the University of Nairobi or an equivalent qualification approved by Senate.
- ii) Be registrable/registered by a professional body of Nursing.
- iii) Applicants must have a minimum of two years of Nursing practice experience and a valid practice license.

## 3.0 DIPLOMA IN RENAL NURSING

### 3.1 INTRODUCTION

The diploma was aimed to address the skills gap for the healthcare service providers at the county level. The diploma course in Renal Nursing intends to train Nurses to acquire knowledge, skills and attitudes in

renal nursing. This curriculum is therefore designed to prepare the Registered Nurses (RN) to participate in renal care services.

### 3.2 COURSE OBJECTIVES

The objectives of this programme is to prepare a nurse who should be able to:-

- i) Perform renal health assessment and make clinical decision. Apply biological mechanisms as a basis for managing the disorders of renal and related systems.
- ii) Manage patients requiring different renal treatment modalities
- iii) Apply knowledge of pharmacotherapy to manage patients requiring/undergoing kidney transplantation
- iv) Provide psychosocial care to patients with renal disorders
- v) Apply principles of management in the provision of renal care services

### 3.4 ENTRY REQUIREMENTS

Individuals eligible for admission into the program shall in addition fulfil the following conditions:

- i) The common regulations for Diploma programmes in the University of Nairobi and the School of Nursing shall apply.
- ii) Diploma in Nursing (KRN/M, KRCHN). The candidate must be registrable by a professional body of Nursing.
- iii) Holders of Bachelor of Science Degree in Nursing from the University of Nairobi or an equivalent qualification approved by Senate. The applicants should be registrable by a professional body of Nursing

- iv) Must have a minimum of Two years of Nursing practice experience
- v) At least C plain at KCSE or equivalent.
- vi) Equivalent qualifications from the four East Africa Community Countries including Uganda, Tanzania, Burundi and Rwanda shall be considered.

### Grading Key:

<b>A - 70% and above</b>	<b>C - 50%- 59%</b>
<b>B - 60%- 69%</b>	<b>Fail - 49% and Below</b>

STAFF LIST	
<b>Director</b>	
Ngugi, P.M., MBChB, MMed. (Surg.), Cert. Urol (RCS), FCS (ECSA)	
<b>Deputy Director</b>	
Were, A.O., MBChB, MMed. (Internal Medicine), FISN (RI) MCR UK, Cert. Med. Educ (WTI)	
<b>Senior Administrative Assistant</b>	
Chitere, W., B.A Social Work, (Nairobi), MSc. HRM, (JKUAT)	

Details on Specific admission requirements of the Institute credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the Institute.

*Please contact*  
 The Director, East African Kidney Institute  
 Tel:- 020 4915067;  
 Email: eaki@uonbi.ac.ke





# KENYA AIDS VACCINE INITIATIVE INSTITUTE OF CLINICAL RESEARCH (KAVI-ICR)

**Director of the Institute:** Prof. Walter G. Jaoko, Dip. (Research Methodology), (Copenhagen), PGD (Health Research), (Stelle-Bosch), Master (Tropical Medicine), (Liverpool), MBChB, PhD, (Nairobi)

## INTRODUCTION

The establishment of KAVI-Institute of Clinical Research (KAVI-ICR) during the year 2013 was as a result of a vast number clinical research studies undertaken by Kenya AIDS Vaccine Initiative from the year 1999. The establishment of the Institute came with expanded mandate to include research in both communicable and non-communicable diseases. To fast track the activities at the Institute, KAVI-ICR has brought on board Post-Doctoral Research Fellows and is offering the Degree of the Doctor of Philosophy (PhD). The degree programme is by dissertation/thesis only.

## REGULATIONS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY AT KAVI-INSTITUTE OF CLINICAL RESEARCH

1. The common regulations for the degree of Doctor of Philosophy in all Schools shall be applicable.
2. The following shall constitute part of the eligibility for registration for the degree of Doctor of Philosophy at KAVI - Institute of Clinical Research:
  - a) A Master of Science, Master of Medicine or Master of Public Health from the University of Nairobi or Equivalent qualifications from recognized Universities
  - b) A Bachelor of Medicine and Bachelor of Surgery or Bachelor of Science or Bachelor of Veterinary Medicine from the University of Nairobi or Equivalent qualifications from recognized Universities
3. A candidate for the degree shall be required to pursue research on some subject connected with medical science at a clinical or pre-clinical level.

Details on specific admission requirements of the school, credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the Institute.



*Please contact:*

The Director

Telephone/Mobile: 0722 207417

E-mail: [kavi@kaviuon.org](mailto:kavi@kaviuon.org); Website: [www.kaviuon.org](http://www.kaviuon.org)

# INSTITUTE OF TROPICAL AND INFECTIOUS DISEASES (UNITID)

**Director of Institute:** Dr. Dufton M. Mwaengo, BSc. Biochemistry, (Nairobi), PhD, Molecular Virology, (Colorado)  
**Deputy Director:** Prof. Julius O. Oyugi, Advanced Dip. in Virology, (KMTC); MSc Virology, (Liverpool), PhD Virology, (Manitoba)

The institute runs postgraduate programmes leading to Postgraduate Diploma, Masters Degrees, PhD and Fellowship. These programmes offer students an opportunity to equip themselves with relevant knowledge, skills and development of innovative techniques to deal with emerging needs in areas of research, effective management and control of Tropical and Infectious Diseases.

The following Academic programmes have been approved by the Senate and are running effective from 2018/2019 academic year:

- i) Master of Science in Medical Statistics
- ii) Master of Science in Tropical and Infectious Diseases
- iii) Postgraduate Diploma in Biomedical Research Methodology
- iv) Fellowship in Healthcare Capacity Building for Sustainable Development
- v) Doctor of Philosophy in Tropical and Infectious Diseases
- vi) Doctor of Philosophy in Medical Statistics

## REGULATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN MEDICAL STATISTICS (MSc. MEDSTAT)

### 1.0 INTRODUCTION

Statistics is defined as a branch of mathematics concerned with drawing inferences from numerical data based on probability theory. Medical Statistics deals with the application of statistical principles and methods required in research and management of health related studies.

Currently there is demand for qualified professionals to serve in the fields of national health systems, the pharmaceutical industry, and in research which is important to the development of a country. Due to changing trends in the patterns of disease occurrence and resistance to the available means of management, there is need for trained health statisticians who are able to gather and utilize the available information to interpret and predict events for purposes of management and control of diseases.

The Msc. in Medical Statistics course aims at training such personnel by equipping them with the relevant knowledge of theoretical and practical aspects of statistics and their applications in health research.

### 2.0 COURSE OBJECTIVES:

- i) Equip students with theoretical and practical knowledge
- ii) Develop and apply techniques of mathematics, statistics and computing to health research and health care delivery
- iii) Provide statistical expertise on public health issues
- iv) Analyze and interpret medical data
- v) Develop research designs and engage in health research

### 3.0 ENTRY REQUIREMENTS

- i) The common regulations for the Masters degree in the University of Nairobi shall apply.
- ii) Candidates eligible for admission into the Master of Science degree in Medical Statistics shall have the following minimum qualifications:
  - a) Holders of Bachelors of Medicine and Bachelor of Surgery , Bachelor of Dental Sciences, Bachelor of Pharmacy, Bachelor of Veterinary Medicine and Bachelor of Nursing Sciences from the University of Nairobi.
  - b) Holders of at least an upper second-class Bachelors degree in Science, Engineering, Agriculture and Arts based subjects with strong mathematical background from the University of Nairobi.
  - c) Holders of a lower second class degree in the disciplines specified in bullet 2 above plus postgraduate diploma or at least two years of relevant research/work experience in their respective fields.
  - d) Holders of a pass degree in the disciplines specified in bullet 2 plus a post-graduate diploma in the relevant disciplines with at least two years of research/work experience
  - e) Holders of a pass degree in the areas specified in bullet 2 plus at least five years of research/work experience
  - f) Any other qualifications equivalent to the above from institutions recognized by the senate of the University of Nairobi.

## REGULATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN TROPICAL AND INFECTIOUS DISEASES (MSC. TID)

### 1.0 INTRODUCTION

Diseases caused by infectious pathogens specifically bacteria, viruses, parasites and fungi are the most frequent as well as the most life threatening health problems occurring in tropical countries. Of these, the human immunodeficiency virus (HIV) as well as malaria and pulmonary tuberculosis cause the highest morbidity and mortality in the tropics. Many other diseases have emerged, some of which cause epidemics further complicating the already worsened situations in resource-limited countries. Bacterial and viral meningitis, yellow fever, rift valley fever and other viral haemorrhagic infections (Ebola and Marburg), and more recently in Kenya the swamp fever are among diseases increasingly becoming common causes of epidemics in Africa south of the Sahara.

Lack of adequate personnel well equipped with innovative approaches in dealing with such major communicable and emerging disease problems together with inadequate supply of the relevant equipment and materials to fight epidemics further complicates the situation. The Masters course in Tropical and Infectious Diseases is designed to build core Infectious Disease Control teams consisting of physicians, dentists, pharmacists, nurses, epidemiologists and biologists capable of predicting disease outbreak, carrying out disease surveillance and controlling disease epidemics. The established core teams will be expected to work closely with the relevant government ministries to combat and control diseases. They will also be expected to work with non-governmental organizations (NGOs) and other international agencies such as the World Health Organization (WHO), Food and Agriculture Organization (FAO) and others.

### 2.0 COURSE OBJECTIVES

- i) To build capacity for the management and control of infectious disease outbreaks in the tropics.
- ii) To provide health personnel with an in-depth knowledge of tropical and infectious diseases.
- iii) To equip trainees with specialized skills in the diagnosis, prevention, control and management of tropical and infectious diseases.
- iv) To equip the trainees with the necessary skills to conduct research in tropical and infectious diseases.

- v) To assist the various Government and Non-Governmental health structures in establishing systems capable of predicting disease outbreaks, surveillance, management and control.

### 3.0 ENTRY REQUIREMENTS

- i) The common regulations for the Masters degree in the University of Nairobi shall apply.
- ii) Candidates eligible for admission into the Master of Science degree in Tropical and Infectious Diseases shall have the following minimum qualifications:
  - a) Holders of Bachelors of Medicine and Bachelor of Surgery , Bachelor of Dental Sciences, Bachelor of Pharmacy, Bachelor of Veterinary Medicine and Bachelor of Nursing Sciences from the University of Nairobi.
  - b) Holders of Bachelor of Science upper second-class degree or above in biomedical sciences from the University of Nairobi with at least three years working experience in medical research or in disease control programmes.
  - c) Holders of Bachelor of Science lower second class degree in biomedical sciences from the University of Nairobi with at least five years working experience in medical research or in disease control programmes.
  - d) Any other equivalent qualifications to the above from institutions recognized by the Senate of the University of Nairobi.

## REGULATIONS FOR THE POSTGRADUATE DIPLOMA IN BIOMEDICAL RESEARCH METHODOLOGY (PGD-RM)

### 1.0 INTRODUCTION

The role of research in the development of new and innovative techniques to deal with emerging biomedical and social science problems has increasingly become important now than ever before especially at this time of environmental degradation and pollution, scarcity of natural resources and the quest for economic development; all of which impart negatively on health leading to disease epidemics.

Good and quality research outcomes require building capacity by increasing the number of researchers through appropriate training. The Research Methodology Course will meet the training needs of those involved or interested in quality biomedical and operational research. It builds on principles of epidemiology, biostatistics, health economics and social sciences.

The course targets graduates in biological disciplines, veterinary science, medicine and social sciences who intend to pursue research activities at various levels including higher degree programmes (MSc. and PhD) in tertiary institutions.

## 2.0 COURSE OBJECTIVES:

- i) Enable participants design and implement research as well as translate research results into planning, policy, and implementation of evidence based programs.
- ii) Organize, present, interpret and utilize research data for decision making and policy formulation.
- iii) Utilize qualitative approaches in policy analysis and data gathering.
- iv) Utilize operations research methods and study designs.
- v) Utilize concepts of economics and management in the health sector.
- vi) Utilize the computer in communication, analysis of data and preparing reports and presentations.
- vii) Conduct appropriate literature search and handle reference.
- viii) Demonstrate ability to read, write and make research presentations.

## 3.0 ENTRY REQUIREMENTS

- i) The common regulations governing Postgraduate Diploma programmes shall apply.
- ii) The minimum requirements for eligibility into the Postgraduate Diploma in Biomedical Research Methodology are:
  - a) Holders of Bachelors degree in Medicine and Surgery, Veterinary Medicine, Dental Sciences, Nursing Sciences and Pharmacy from the University of Nairobi.

- b) Holders of at least Bachelors degree lower second class honours in Biological and Social Sciences from the University of Nairobi.
- c) Holders of a pass degree in the areas specified in bullet 2 plus at least two years of research/work experience.
- d) Any other equivalent qualifications to the above from institutions recognized by the Senate.

## REGULATIONS FOR THE DOCTORATE DEGREE:

### COURSES OFFERED

- i) Tropical and Infectious Diseases
- ii) Medical Statistics

### 1.0 INTRODUCTION

The PhD programs at UNITID are by thesis or project only. The minimum duration of the program is 3 years.

### 2.0 ENTRY REQUIREMENTS

The following shall be eligible to apply for registration for the degree of Doctor of Philosophy: - either

- a) A holder of a bachelor's and Master's degree from the University of Nairobi
- b) A holder of a Bachelor's and Master's degree or equivalent academic qualifications of another institution recognized by the University of Nairobi Senate as of comparable status
- c) In either case, the applicant must be able to produce evidence, to the satisfaction of Senate, of his adequate background in the discipline and capacity to carry out original research.
- d) In addition to producing evidence of eligibility for registration, candidates for the Doctor of Philosophy degree may be required to appear for interview by the Institute of Tropical and

Infectious Diseases to determine their suitability for registration.

## FELLOWSHIP IN HEALTHCARE CAPACITY BUILDING FOR SUSTAINABLE DEVELOPMENT (FHCS) PROGRAM

### 1.0 INTRODUCTION

The National HIV/AIDS Program in Kenya has made tremendous strides in the provision of high quality HIV prevention, care and treatment services. The increased resources and rapid expansion of HIV and other health services has created a high demand for effective HIV program leadership and management. The UHIV Fellowship Program aims at addressing this challenge.

The purpose of the Fellowship Program is to improve health outcomes by strengthening leadership and management of healthcare programs and in particular HIV/AIDS interventions. The program uses an academic training model that is locally owned, relevant and sustainable. More specifically, the Program is geared towards equipping health care workers with technical skills and knowledge to ensure efficient and effective implementation of health services. Further, the program aims at establishing a capacity building framework for the participating local organizations to enhance the delivery of quality services.

The Fellowship targets middle to senior level public health professionals in the public and private sector. Fellows will be selected based on their potential for leadership and commitment to the health service in the public or private sector and will be expected to provide leadership in HIV prevention, care, and treatment programs at community, regional, national and international levels upon graduation.

The UHIV Fellowships will be awarded in five areas of specialization:

- i) Program Management;
- ii) Health Economics;
- iii) Health Informatics;
- iv) Epidemiology & Biostatistics;
- v) Monitoring and Evaluation.

Fellows will undergo a 2-year full time, competency based training program that will include professional enrichment through attachments in public and private health organizations/departments across the country, didactic, and web-based learning.

## 2.0 ENTRY REQUIREMENTS

Candidates eligible for admission into the UHIV Fellowship Program shall have the following minimum qualifications:

### 2.1 Program Management Track

- a) Master's degree in health or related social and biological sciences from the University of Nairobi or any other institution recognized by the University of Nairobi Senate with at least one year experience in the health sector.
- b) Any other equivalent qualification to the above from institution recognized by the University of Nairobi Senate.

### 2.2 Health Economics Track

- a) Bachelors in Economics or any other degree with strong component of Economics.
- b) Master's degree in any relevant discipline including medicine, pharmacy, nursing, finance of the University of Nairobi, or an equivalent qualification from another institution recognized by the University of Nairobi Senate with at

least one year experience in the health sector. Any other equivalent qualification to the above from institutions recognized by the University of Nairobi Senate.

### 2.3 Health Informatics Track

- a) Holders of a Bachelor's degree in Computer Science or Information Technology or a related discipline, and a master's degree in a relevant discipline (health related, Mathematics related, computer science, bioinformatics, economics, health informatics), of the University of Nairobi, or an equivalent qualification from another institution recognized by the University of Nairobi Senate.
- b) In addition, they must have demonstrable working experience in the health sector of at least one year.
- c) Holders of a Master's Degree in Computer Science or Information Technology or a related discipline, of the University of Nairobi, or an equivalent qualification from another institution recognized by the University of Nairobi Senate. In addition, they must have demonstrable working experience in the health sector of at least one year.

### 2.4 Monitoring and Evaluation Track

- a) Master's degree in Social or Biological Sciences
- b) Bachelor's degree in a relevant field of the University of Nairobi, or an equivalent qualification from another institution recognized by the University of Nairobi Senate
- c) At least one year experience in the health sector.
- d) Any other equivalent qualification to the above from institutions recognized by the University of Nairobi Senate.

## 2.5 Epidemiology and Biostatistics Track

- a) Master's degree in social or biological sciences
- b) Bachelor's degree in a relevant field of the University of Nairobi, or an equivalent qualification from another institution recognized by the University of Nairobi Senate
- c) At least one year experience in the health sector.
- d) Any other equivalent qualification to the above from institutions recognized by the University of Nairobi Senate.

#### Grading Key

A - 70% and above	C - 50% - 59%
B - 60% - 69%	Fail - 49% and Below

#### STAFF LIST

##### Senior Administrative Assistant

Nyaga, L.N., B.Comm., (Daystar), MA Project Planning & Management, (Nairobi)

##### Snr. Lab Technologist

Mochache, F.M., BSc, MEd. Lab. Sciences, (KU), Dip. in Project Mgt, (KIM), Fellowship in Quality Mgt, (Nairobi), MSc. Bioinformatics and Molecular Biology, (JKUAT *Ongoing*)

Details on specific admission requirements of the school, credit transfer and exemptions, course structure and duration, examination regulations, course outline and award of degree may be obtained from the Institute.

*Please contact*

The Director, Institute of Tropical Infectious Diseases

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