



In Search of Better Health

KENYA MEDICAL RESEARCH INSTITUTE

DOCUMENT TITLE: MSC. EPIDEMIOLOGY AND BIostatISTICS

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PAGE: 1 of 2

PURPOSE OF THE PROGRAMME

The purpose of the programme is to train health professionals by providing them with epidemiological and statistical knowledge and skills to make valuable contributions to public health in low-, middle- and high-income countries. Epidemiological and biostatistical methods underpin clinical medical research, public health practice and health care evaluation in investigation for causes and interventions towards prevent or control of disease.

LEARNING OUTCOMES OF THE PROGRAMME

The expected learning outcomes of Master of Science in Epidemiology and Biostatistics are:

1. Graduates with in-depth knowledge and skills on disease surveillance, outbreak investigations and response.
2. Graduates with the ability to conduct internationally acceptable health research with specific focus on infectious diseases.
3. Graduates prepared to participate in the formulation and implementation of health policies and evaluation of epidemiologic programmes in public health.
4. Graduates inculcated with the values of professionalism, ethics, and community service.
5. Graduates who shall promote the stated vision, mission, and philosophy of JKUAT.

ENTRY REQUIREMENT

The following shall be eligible for admission into the Master of Science in Epidemiology and Biostatistics.

- A holder of at least an Upper Second-Class Honours degree in, Bachelor of Science (BSc.) in Medical Microbiology, BSc. Environmental Health, BSc. Public Health, BSc. Biochemistry, or Biological Sciences, from JKUAT or any other Institution recognized by JKUAT Senate.
- A holder of at least an Upper Second-Class Honours degree in, Bachelor of Science (BSc.) in Medical Microbiology, BSc. Environmental Health, BSc. Public Health, BSc. Biochemistry, or Biological Sciences, BSc. Health Systems from JKUAT or any other Institution recognized by JKUAT Senate.
- A holder of BSc. Nursing, BSc. Medical Laboratory Sciences, Bachelor of Pharmacy (B. Pharmacy), Bachelor of Medicine and Bachelor of Surgery (MBChB), Bachelor of Dental

Surgery, BSc. Community Health, BSc. Nutrition or Bachelor of Veterinary Medicine (BVM) from any Institution recognized by JKUAT Senate.

- In addition to the above, the applicant should also have satisfied the minimum entry requirements for admission to an undergraduate degree programme.

DURATION AND PATTERN OF THE PROGRAMME

- The Master of Science in Epidemiology and Biostatistics programme shall last for a period of 24 Months with a minimum period of (18) months comprising two semesters each of fourteen (14) weeks of lectures and an additional two (2) weeks of examinations at the end of each semester. After successful completion of coursework, the learner will proceed to write research proposal and thesis.
- To qualify for the award of the Degree of Master of Science in Epidemiology and Biostatistics, a candidate must complete the course of study for a period of not less than eighteen (18) months and not more than FOUR (4) Academic Years.

PROGRAMME STRUCTURE

S/No.	Course Code	Course
Year One Semester I		
1	PEH 3100	Research Methodology
2	PGH 3100	Demography and Population Health
3	PEH 3101	Data Analytics and Visualization
4	PEH 3102	Biostatistics
5	PEH 3103	Epidemiological Methods
6	PEH 3104	Quantitative Epidemiology
Year One Semester II		
7	PEH 3105	Biostatistics for Epidemiological Studies
8	PEH 3106	Applied Epidemiology
9	PPH 3110	Healthcare Delivery Systems
10	PEH 3108	Molecular Epidemiology
11	PPH 3112	Health Systems Research
12	PEH 3110	Epidemiology of Infectious Diseases
Year Two Semester I & II		
13	PEH 3200	Thesis