United States International University-Africa

Education to take you places

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Master of Science in **Clinical Pharmacology & Therapeutics**

USIU-Africa is accredited in Kenya by the Commission for University Education (CUE) & the United States of America by WASC Senior College and University Commission respectively.

PROGRAM DESCRIPTION

The Master of Science in Clinical Pharmacology and Therapeutics at USIU-Africa is a specialized graduate program designed to equip students with the knowledge and skills to design and conduct pharmacodynamic and pharmacokinetic studies in both animals and humans, carry out toxicity assessments of chemicals and drugs, and identify novel drug targets for disease treatment. The program prepares graduates to offer critical pharmacology services such as therapeutic drug monitoring, pharmacovigilance, and bioequivalence studies, while also providing expert consultancy to regulatory authorities and healthcare providers on appropriate drug use. It emphasizes both theoretical and practical training through coursework, clinical attachments, and a structured research thesis.

Graduates are well-positioned for a wide range of career opportunities including roles as clinical pharmacologists, research scientists, toxicologists, therapeutic drug monitoring specialists, pharmacovigilance officers, and regulatory affairs professionals. They may also serve as academic faculty, medical affairs consultants, or forensic toxicology experts. The program fosters collaborative clinical and pre-clinical research, contributing to local and global drug and vaccine development efforts and strengthening capacity in rational drug use and health systems improvement.

LEARNING OUTCOMES

Upon completion of the program, students will be able to:

1. Provide clinical pharmacokinetics, therapeutic drug monitoring, pharmacogenomics and pharmacovigilance services.
2. Provide clinical and forensic toxicology services.
3. Conduct drug discovery research from natural or synthetic sources.
4. Conduct pharmacodynamics, pharmacokinetic and toxicity studies of drugs in animals and humans.
5. Demonstrate ethical leadership in clinical, research and health education.

MODE OF DELIVERY

The program offers a flexible learning experience, combining face-to-face and online/blended/ODeL modes for both full-time and part-time students.

DEGREE REQUIREMENTS

60 UNITS

CORE COURSES **57 UNITS**

PHM 6511	Molecular Pharmacology and pharmacokinetics	3 Units
PHM 6512	Clinical and Forensic toxicology	3 Units
PHM 6513	Applied Pharmacometrics and clinical pharmacokinetics	3 Units
PHM 6521	Computational pharmacology and toxicology	3 Units
PHM 6422	Vaccine Development and Bioassay methods in drug discovery research	4.5 Units
PHM 6522	Advanced Pharmacology and Integrated therapeutics I	3 Units
PHM 6523	Clinical pharmacokinetics and Pharmacovigilance	3 Units
PHM 6531	Advanced pharmacology and Integrated therapeutics II	3 Units
PHM 6432	Clinical trials, research methods and biostatistics	3 Units
PHM 6433	Health assessment and Clinical services	4.5 Units
PHM 6541	Research Project I (Proposal)	6 Units
PHM 6542	Attachment (Research inst., Hospital, Forensic lab)	6 Units
PHM 6551	Research project II (Data collection/Experiment)	6 Units
PHM 6561	Research project III (Thesis writing and defense)	6 Units

ELECTIVE COURSES **3 UNITS**

PHM 6543	Global tour	3 Units
OR		
PHM 6544	Seminar on advances in drug research	3 Units

ADMISSION REQUIREMENTS

In addition to the general admission requirements, candidates must have earned a degree from a health-related field, specifically: Bachelor of Pharmacy (BPharm), MBChB, Doctor of Pharmacy (PharmD), Doctor of Dental Medicine (DDM), Doctor of Veterinary Medicine (DVM), or a BSc in Clinical Medicine, Nursing, from a recognized university with a minimum GPA of 2.5 or its equivalent.

CAREER OPPORTUNITIES

1. Academia & Research
2. Hospital & Clinical Practice
3. Pharmaceutical Industry
4. Drug Development
5. Public Health & Policy
6. NGOs & Global Health
7. Entrepreneurship & Consulting

CONTACTS

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