

MVP 7212	Functional and diagnostic pathology	5
MVP 7213	Statistics and basic research techniques	2
<b>Electives (select only one)</b>		
MVP 7214	The pathology of pet animal diseases	2
MVP 7215	The pathology of diseases of Rabbits	2
MVP 7216	The pathology of diseases of Rabbits game Animals in the country	2

#### Course work schedules:

Year I: Semester I		CU
Course		
MVP 7111		5
MVP 7112		3

MVP 7113		2
MVP 7114		5
<b>Total</b>		<b>15</b>
<b>Semester II</b>		
MVP 7211		5
MVP 7212		5
MVP 7213		3
MVP 7214*		2
MVP 7215*		2
MVP 7216*		2
<b>Total</b>		<b>19</b>

#### KEY

\* = Elective Courses

#### Year II: Semester I & II

Devoted to Research Projects/Dissertations

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## MASTER OF SCIENCE IN MOLECULAR BIOLOGY (MSBS)

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### Introduction

Molecular biology comprises the most recent technologies applied to solve problems in forensic medicine, animal and plant breeding, drug & vaccine development, diagnosis of diseases of all forms of life, anthropology, Epidemiology, pathogenesis, teratology/embryology, oncogenesis and other disciplines. Molecular biology techniques allow researchers to understand the molecular mechanisms underlying the survival and replication of disease causative agents and pathogenesis of diseases.

### Objectives

The MBS programme will:

- (i) Enable postgraduate students to acquire knowledge in molecular biology, which will make them better equipped to manage diseases and other problems in veterinary and human medicine, agriculture and other biological sciences.
- (ii) Train graduates with a qualification sufficient to meet the needs of staff development of local universities and research institutions.

### Duration

The MBS duration shall be 2 years (four semesters).

The first year shall consist of course work and practicals spread over the two semesters. The second year shall be for research and dissertation. The maximum duration shall be 3 years.

### Programme Structure

Semester I		
MBS 7111	Cell and Molecular Biology	5
MBS 7112	Protein Biotechnology	5
MBS 7113	Molecular Microbiology	5
MBS 7114	Immunobiology	3
MBS 7211	Seminar/Tutorial	3
Semester II		
MBS 7212	Nucleic Acid Biotechnology	3
MBS 7213	Molecular Epidemiology and Population Genetics	3
MBS 7214	Research Methods and Biometry	3
MBS 7215	Seminar/Tutorial	3
MBS 7216	Molecular Virology	3
MBS 7217	Molecular Bacteriology	3

### Year II: Semester I & II (Core course)

Research Project and Dissertation.

## Assessment of courses

### Examinations

Each course shall be assessed on 100 marks distributed as follows:

1) *Course work (40 marks)*

Depending on the course concerned course work shall consist of:

**Either:** Tests/assignments (20%) plus laboratory work (20%).

**Or:** Tests/assignments only (40%)

There shall be at least 2 tests/assignments per semester.

2) *Final written examination (60 marks).*

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## MASTER OF VETERINARY PREVENTIVE MEDICINE (MVPM)

### Objectives

The major goal of this programme is to produce pragmatic specialists with the knowledge and skills to meet the current and future challenges in the area of preventive veterinary medicine in the region – Prevent, Control or even Eradicate infectious and non-infectious or productivity related conditions or insufficiencies, and be knowledgeable in livestock economics for decision making. The programme will provide cadres with specialized training in Epidemiology of infectious and non-infectious diseases, Diagnostics, Disease Control, Animal health Economics, Planning and Management, Integrated crop-livestock production, Administration, Leadership Skills among others.

### Objectives

- (i) Equip veterinarians with the necessary management and administration skills valuable at all levels of government (local, national including regional and international).
- (ii) Promote and strengthen efficient sourcing, collection, utilization and dissemination of animal health information for better and efficient disease control and animal health promotion services, as advisors to farmers and livestock enterprises.
- (iii) Strengthen the capacity of veterinarians to implement veterinary preventive programmes in Uganda at district level, nationally, regionally and internationally.
- (iv) To promote inter-disciplinary, inter-departmental, and institutional linkages among national and international institutions providing training in veterinary preventive medicine.

- (v) To strengthen the capacity to initiate, implement and evaluate applied research.

### Duration

The programme is conducted by course work and thesis, and has a duration of 24 months (2 academic years), two semesters per year for a total of four semesters. The first and second semester (Year I) is devoted to course work (core and elective courses) and identification of suitable research topics. In the second year, while research and thesis write-up candidates are required to undertake under supervision. During the course of study, each student will present a seminar. The supervised teaching and seminar requirements are to enhance the advisory role of the graduate of this programme.

The programme shall consist of core and elective courses as shown below:

### Core courses

These courses are mandatory for the award of the degree of Master of Veterinary Preventive Medicine (MVPM). They include: ***Statistics for Health Sciences; Advanced Epidemiology; Control and Eradication of Infectious and Non-infectious diseases; Food and Environmental health; Research Methods, Communication & Information Technology; Management & Administration: Animal Health Economics and Planning, Herd health and Production Management, Veterinary extension and a Seminar course.***

### Electives

These include: Laboratory Research Techniques, Livestock Project Planning & Management, Applied Immunology, Information systems in Animal Health and Production.