

UNIVERSIT OF NIGERIA, NSUKKA

DEPARTMENT OF VETERINARY PUBLIC HEALTH AND PREVENTIVE MEDICINE

POSTGRADUATE PROGRAMMES IN

VETERINARY PUBLIC HEALTH AND PREVENTIVE MEDICINE

PHILOSOPHY

Veterinary public health and preventive medicine is a field of study that makes use of veterinary science to enhance the state of physical, social and moral well being in the human population. The postgraduate programme in Veterinary Public Health and Preventive Medicine is to advance knowledge, enhance skills and talent and make postgraduate students of the Department active participants in the fight against infectious and zoonotic diseases, towards adequate protection of animal and human health, and assuring the availability of wholesome foods of animal origin to the society.

The postgraduate programme will provide options to students for the degree of Master of Science in Veterinary Public Health and Preventive Medicine (M. Sc), Master of Veterinary Public Health (MVPH) or Master of Preventive Veterinary Medicine (MPVM) and Doctor of Philosophy (Ph.D) in Veterinary Public Health or Veterinary Preventive Medicine

OBJECTIVES

The aim of the postgraduate programme in the Department of Veterinary Public Health and Preventive Medicine is to provide specialized training and advanced scientific knowledge in different fields of Veterinary Public Health and Preventive Medicine for enhanced health, through quality research and teaching, thereby equipping candidates academically towards institutional leadership & socio-economic development of the society.

SCOPE:

Veterinary Public Health and Preventive Medicine harnesses the knowledge of Veterinary Medicine to acquaint students with the various ways to prevent, control and eradicate diseases in animal population with the aim of improving the economy and health of the society as well as maintaining a good habitable environment for man and animals. The programme is structured to fully cover the requisite knowledge, re-enforcing the rudiments of healthy animal production, environmental health, animal and human population health maintenance, emerging and re-emerging diseases, one health initiative.

ADMISSION REQUIREMENTS

a. M. Sc, MVPH and MPVM Programme

The prospective candidates must have

- i) DVM degree (or its equivalents- MBBS, BVS) with an average B grade (60% and above) score in undergraduate public health courses from a recognized university.
- ii) B.Sc. degree in Nursing, Environmental Health or Sanitary Engineering with an average B grade score (60% and above) in relevant courses.

b) Ph.D Programme

The prospective candidates must have Master of Science (M. Sc) in Veterinary Public Health and Veterinary Preventive Medicine, Masters in Veterinary Public Health (MVPH), or Masters in Preventive Veterinary Medicine (MPVM), or Masters in Public Health (MPH) with a minimum average performance of 60% and above or 3.5 GPA on a 5-point scale or GPA 3.0 on a 4-point scale from a recognized university.

AREAS OF SPECIALIZATION: M.Sc, MVPH, MPVM and PhD

- i. Veterinary Public Health
- ii. Preventive Veterinary Medicine
- iii. Veterinary Epidemiology

DURATION OF PROGRAMMES

M.Sc, MVPH, MPVM

Maximum and minimum duration of M.Sc, MVPH, MPVM programmes shall be:

Full-Time: A minimum of 3 semesters

A maximum of 5 semesters

Part-Time: A minimum of 5 semesters

A maximum of 8 semesters

Ph.D

Full-Time: A minimum of 6 semesters

A maximum of 10 Semesters

Part-Time: A minimum of 8 Semesters

A maximum of 12 semesters

Requirements for graduation

(a)The following criteria shall be assessed for the award of Master’s degree in the Department

- Course work: Each candidate shall carry a minimum credit load of 33 units
- Research project leading to project report – 6 credit units
- Seminars: One seminar on research project findings.
- In all cases, masters students must write and submit to the department a project report duly supervised by a lecturer in the department whose qualifications are not below the Ph.D. Such a project report must be sent to an external examiner nominated by the department and appointed by Senate for that purpose.

(b)The requirements for the award of Doctorate Degree shall be assessed as follows:

- In addition to remedying any deficiency in courses, candidates shall be required to present 3 seminars (research proposal, research progress and findings).
- A comprehensive research embodied in a Thesis
- *All PhD students must register and take the following faculty-based courses totaling 30 credit units plus the Postgraduate School based course, Synopsis and Grant Writing (3 credit units).*

<u>Course No.</u>	<u>Title</u>	<u>Units</u>
FVM 895	PhD Research Project Proposal Seminar	2
FVM 896	PhD Research Project Progress Report Seminar	2
FVM 897	PhD Research Project Final Seminar	2
PGC 701	Synopsis and Grant writing	3
FVM 890	Thesis	24
	Total -	33 units

LIST OF APPROVED POSTGRADUATE SUPERVISORS

Professor

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| 1. J. A. Nwanta | Veterinary Epidemiology/
Preventive Veterinary Medicine |
| DVM (Nig.), M.Sc (ABU), PhD (ABU),
FCVSN, FIIA, CEID (USA), FIPMD | |

Senior Lecturer

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| 2. Dr. E.V. Ezenduka, DVM (Nig), M. Sc (Nig),
PhD (Nig), FCVSN, CEID (USA) | Veterinary Public Health |
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Lecturer I

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| 1. Dr. A. J. Ogugua, DVM (Nig),
MPVM (Ibadan), Ph.D (Ibadan) | Zoonosis |
| 2. Dr. I. O. Nwankwo DVM (Nig),
MVPH (Sokoto), Ph.D (Sokoto) | Veterinary Public Health/ Veterinary
Epidemiology |

JOB OPPORTUNITIES

Graduates of the Department have opportunities to undertake advanced studies disciplines associated with public Health. The graduates of the Department can be consultants in issues concerning preventive medicine, vaccine production laboratories, research institutes, farms, government institutions, private and public abattoirs as well as hold academic positions in the institutions of higher learning. Graduates of the Department can be employed in dairy farms and milk companies. They can work with military and paramilitary institutions, police and related institution. They can also work in international organizations such as WHO, OIE, FAO and UNO. They can also be self employed.

COURSES CODES, TITLES AND UNITS FOR THE MASTERS DEGREE PROGRAMME

All MSc students are to register and take:

- (i) **Four compulsory faculty-based courses with a total credit unit load of 14**
 - (ii) **One compulsory Postgraduate course PGC 601 (Research Methodology and application of ICT in Research) (3 credit units).**
 - (iii) **Other departmental courses as recommended for the student by the Supervisor / Department based on the student's area of specialization which must constitute a minimum of 16 units.**
- Total = 33units**

Compulsory Faculty-based Courses for the MSc programme.

First Semester

<u>Course No.</u>	<u>Title</u>	<u>Units</u>
FVM 701	Research Methods and Scientific Writing	3

Second Semester

<u>Course No.</u>	<u>Title</u>	<u>Units</u>
FVM 702	Biometrics and Computer Applications	3
FVM 796	Research Project Final Seminar	2
FVM 790	Research Project	6
Total -		14 units

Compulsory Postgraduate course for MSc

<u>Course No.</u>	<u>Title</u>	<u>Units</u>
PGC 601	Research Methodology and application of ICT in Research	3

Departmental Courses

Department Core and Elective Courses for Masters in Veterinary Public Health and Preventive Medicine (M. Sc) and Masters in Veterinary Public Health (MVPH)

Core Courses

First Semester

Course Code	Title	Credit Unit
VPH 701	Zoonoses and Emerging Zoonoses	3
PVM 701	Advanced Veterinary Epidemiology	2
VPH 703	Environmental Health	2
VPH 705	Meat and Milk Hygiene	3

Second Semester

Course Code	Title	Credit Unit
VPH 702	Food Safety	2

Elective Courses

Course Code	Title	Credit Unit
VPH 706	Public Health Administration	2
PVM 704	Disease Surveillance	2
PVM 702	Veterinary Information Management	2
VPH 704	Abattoir Design and Management	2

Departmental Core and Elective Courses for Master of Preventive Veterinary Medicine (MPVM)**Core Courses****First Semester**

Course Code	Title	Credit Unit
PVM 701	Advanced Veterinary Epidemiology	2
PVM 703	Veterinary Jurisprudence	2
PVM 705	Veterinary Economics	2
PVM 707	Herd health management, vaccine production and vaccination	2

Second Semester

Course Code	Title	Credit Unit
PVM 702	Veterinary Information Management	2
PVM 704	Disease Surveillance	2

Elective courses

Course Code	Title	Credit Unit
PVM 706	Veterinary Business and Management	2
VPH 706	Public Health Administration	2
VPH 708	Veterinary Preventive Medicine	2

appendix). Data analysis and result presentation in different disciplines using appropriate analytical tools. Methods of project/dissertation writing. Application of appropriate advanced ICT tools relevant in every discipline for data gathering, analysis and result presentation. Essentials of spreadsheets, internet technology, and internet search engines. All registered Masters Degree students must attend a solution-based interactive workshop to be organized by the School of Postgraduate Studies for a practical demonstration and application of the knowledge acquired from the course, conducted by selected experts.

Departmental Courses

VPH 701: Zoonoses and Emerging Zoonoses [3 units]

Basic concepts of zoonoses, a review of zoonotic disease and their classification, epidemiology of major bacterial, viral, protozoan and parasitic diseases with emphasis on implications for public health. Factors influencing the occurrence of emerging and re-emerging zoonotic diseases, prevention and control of emerging zoonotic diseases such as Avian Influenza, Bovine Spongiform Encephalopathy, Acute Respiratory Syndrome, etc.

VPH 702: Food Safety [2 units]

Roles of Veterinarian in public health implementation, roles of veterinarian in producing safe foods (handling, packaging and retailing), drug residues in meat and meat products (causes, permissible levels, detection, prevention), carcinogens in meat and meat products, prevention and control strategies throughout the food chain including Hazard Analysis and Critical Control Points (HACCP), concepts and application of traceability in food safety.

VPH 703: Environmental Health [2 units]

Definitions, ecological concepts, practices of Veterinary Medicine and its impacts on human and the environment. Farm and abattoir waste and management, environmental sanitation and disinfection, vector control.

VPH 704: Abattoir Design and Management [2 units]

Definitions, basic factors in abattoir design, basic requirements of an abattoir and slaughter slabs, abattoir designs including compost sheds, sludge tanks and equipment requirements, cold room design, management of municipal and export abattoir

VPH 705: Meat and Milk Hygiene [3 units]

Meat spoilage and bacteriology, meat quality, ante-mortem and post-mortem inspection, meat preservation techniques, meat processing techniques, meat borne diseases, transportation of live animals and meat, requirements of a meat shop/stall, water quality assessment, components and functions of meat hygiene laboratory, practical inspection of meat at slaughter slabs and

abattoirs. Basic requirements for quality milk production, udder health management, milk collection, handling and storage, milk products, milk preservation

VPH 706: Public Health Administration [2 units]

Administration of public health institutions, requirements in setting up Veterinary hospitals/clinics, house-calls, practicing premises, laboratories. Hospital management (administrative, personnel and clinical management), employment laws and practice evaluation.

PVM 701: Advance Veterinary Epidemiology [2 units]

Concepts in Veterinary Epidemiology, sampling methods and requirements for the detection and identification of microbial agents, descriptive epidemiology, analytical and observational epidemiology, field investigations of epizootic, enzootic, pandemic and sporadic diseases including prevention and eradication. Planning an implementation of epidemiological projects, strategies for disease control and eradication in a population, risk analysis

PVM 702: Veterinary Information Management [2 units]

Overview of computer and information technology (computer accessories in veterinary practice), general application software, Networking, database and information management in veterinary practice (herd health management, hospital management, integrated diagnosis and laboratory data management). Disease monitoring and surveillance information management. Internet and related veterinary resources (Telemedicine in veterinary practice, veterinary bioinformatics, veterinary databases and websites, social networking in veterinary practice, Geographic information system, Google Earth and disease mapping).

PVM 703: Veterinary Jurisprudence [2 units]

Review of acts, regulations, rules and orders relating to animal movement, importation and trade cattle routes. Animal Disease Control Acts, Veterinary Public Health Acts, Rabies Control Act, Legislations regulating the importation, marketing and uses of Veterinary drugs and vaccines. Professional responsibilities for the use of Veterinary drugs and vaccines. International legislations and conventions relevant to veterinary practice (e.g. *Codex Alimentarius*, OIE, FAO, IBAR, WHO).

PVM 704: Disease Surveillance [2 units]

Definitions of diseases and disease surveillance, historical perspective on the control of animal diseases, trans-boundary animal diseases, map reading and use of Geographical Information System (GIS) in disease surveillance, disease reporting, national and international and international requirements in disease surveillance and reporting (e.g. WTO sanitary requirements), OIE pathways for declaration of freedom from disease.

PVM 705: Veterinary Economics [2 units]

Basic principles of economics, methods of evaluation of economic losses due to acute, chronic and sub-clinical diseases. Criteria for assessing production losses, project planning, evaluation and monitoring, veterinary project appraisal

PVM 706: Veterinary Business and Management [2 units]

A review of demand and supply of veterinary services in Nigeria, business opportunities in the Veterinary profession, management techniques, equipment and staff requirements, financial management in Veterinary business

PVM 707: Herd Health Management, Vaccine Production and Vaccination [2 units]

General history of vaccination, development and uses of animal vaccines in Nigeria due to acute, concepts of antigenicity and immunogenicity in relation to animal vaccines, vaccine types, vaccination procedures (precautions, advantages and disadvantages), determination of vaccine efficacy, planning vaccination campaign.

PVM 708: Veterinary Preventive Medicine [2 units]

Basic concepts of control, prevention and eradication of diseases; disease surveillance and reporting; historical perspective on the control of animal diseases; national, regional, international and global dimension of disease control; strategies for control, prevention and eradication of diseases; planning and administrative organization for disease control; channels of action in disease control programme, diagnostic tactics, mass treatment, quarantine, restriction of animal movement, slaughter of diseased or exposed animals, disposal and indemnity, mass immunization, ring vaccination, breeding for resistance, improving management for disease control, new international and WTO sanitary requirements, impinging on international trade of livestock and livestock products.

DOCTOR OF PHILOSOPHY (PhD) DEGREE PROGRAMME

Course Descriptions for the Doctor of Philosophy Programme

FVM 895 PhD Research Project Proposal Seminar [2 units]

Seminar on proposed PhD research project highlighting background of the study, review of literature on current state of knowledge of the area of research, statement of problem, objectives of the study, proposed methodology and expected output/significance of the study.

FVM 896 PhD Research Project Progress Report Seminar [2 units]

