

**STUDENTS  
HANDBOOK**

**COLLEGE OF VETERINARY  
SURGEONS NIGERIA**

**PUBLIC HEALTH & PREVENTIVE  
MEDICINE FACULTY**



**COLLEGE OF VETERINARY  
SURGEONS NIGERIA**

**MEDICINE FACULTY**

**STUDENTS HANDBOOK**

## COPYRIGHT PAGE

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## **ACKNOWLEDGEMENT**

We acknowledge the opportunity given to members of the Interim Management Committee by the Board of the Veterinary Council of Nigeria to implement the recommendations of the Prof. J.D. Amin led Committee on the review of the College of Veterinary Surgeons Nigeria. The President of the Council AIG. Aisha A. Bajju has particularly been very helpful in assisting the IMC in its activities. We also acknowledge the support received from the Ag. Registrar Dr. Fadipe who has made himself available to attend our virtual meetings as well as attend to our issues.

Progress in reforming the College would not have been possible without the wonderful support and participation of our Veterinary Teaching Hospital Directors, Study Centre Supervisors as well as the Specialty Coordinators.

Zoaka A. Hassan  
(Ag. Provost)

## **FORWARD**

This edition of the College of Veterinary Surgeons, Public Health and Preventive Medicine Faculty Handbook is an updated version that buttresses the much needed clinical training in order to provide sound and focused services to the community in multidisciplinary areas.

There is the addition of two Specialty areas to the existing ones making it four specialty areas: Public health, Food Safety, Epidemiology and Preventive Medicine with accompanying courses.

The handbook is self-explanatory with inclusion of clearer course codes and titles arranged according to the year of study irrespective of point of entry.

Residents are strongly advised to familiarize themselves with the contents of the Handbook as information is adequately detailed. However, in the event of more clarifications, the head of Faculty, Study Centre Supervisors and the Coordinators' contacts are provided.

Prof. E. V. Ezenduka  
Ag. Head; Public Health & Preventive Medicine Faculty.

## COLLEGE MANAGEMENT



Prof. Zoaka A. HASSAN FCVSN  
IMC Chairman & Ag. Provost



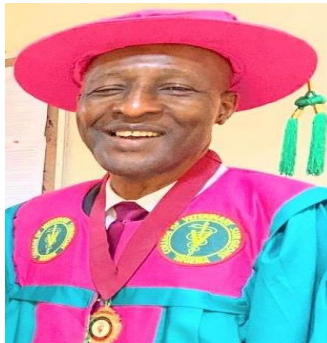
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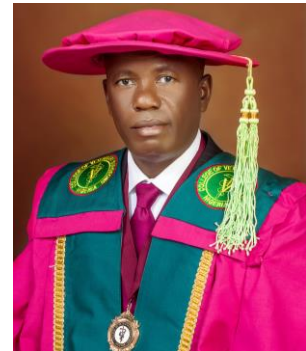
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College Administrative Officer

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# *PART 1*

## *GENERAL INFORMATION*



## **1.1 BRIEF HISTORY OF THE VETERINARY PROFESSION**

The Veterinary profession in its present modern form can be traced back to the first Veterinary College in Lyon, France established in the year 1762. The record has it that once it was created it was known to provide scientific and professional training for comparative medicine. Hence, many ministries of Health in Europe started sending their human doctors to study the 'new medicine'. The idea is that medicine is one – human and animal; but that Veterinary Medicine is comparative medicine, more comprehensive and more demanding of efforts and resources. Veterinary Medicine is also capable of satisfying both social and economic needs of human society, through animal and human health protection, determination of animal welfare needs, promotion of human practices and unique contribution of essential knowledge for the maintenance of environmental sanitation and sanity in civilized human communities.

In Nigeria however, the first British/colonial Veterinary Surgeons started operating modern veterinary practice and giving essential services about the time the First World War began in 1914. Their mandate was not just the promotion of animal health, but also the practice of systematic animal husbandry for the production of food of animal origin, especially meat, milk and other dairy products for human consumption in war time Nigeria. By 1948, a school for the training of professional Veterinary Surgeons was established in Vom in the present Plateau State of the country. Twelve (12), Veterinary Faculties have so far been established between the mid-1960s to date in the country. They are located in the University of Ibadan, Ibadan; Ahmadu Bello University, Zaria; University of Nigeria, Nsukka; University of Maiduguri, Maiduguri; Usmanu Danfodiyo University, Sokoto; University of Abuja, University of Ilorin, University of Jos, University of Benin, Universities of Agriculture of Makurdi, Abeokuta and Umudike, Abubakar Tafawa Balewa University Bauchi as well as Bayero University Kano. However, considering that the programmes in these faculties basically constitute an academically inclined approach to the professional curriculum, it has become necessary to start a more professionally structured postgraduate programme in Nigeria as in other leading countries of the world.

## **1.2 GENERAL ADMISSION REQUIREMENTS**

- 1.2.1. To be admitted into the Fellowship of the College in any Specialty/Option of Faculty:
- i. The candidate must hold a Doctor of Veterinary Medicine (DVM) degree or its equivalent recognized by the Veterinary Council of Nigeria (VCN).
  - ii. The candidate must be registered with the VCN for the purpose of practicing Veterinary Medicine in Nigeria
  - iii. The candidate must have flair in the area of interest as evidenced by his/her score in the subject area during the DVM training or post-DVM professional experience.
  - iv. The candidate must have had at least 3 years Council registration.
  - v. Additional qualifications in relevant areas may be an added advantage. Each Faculty

shall determine the extent of such advantage especially in terms of courses to be covered.

- vi. The candidate must submit an NYSC certificate or evidence of exemption.
- vii. Any Faculty may identify peculiar additional criteria appropriate to that Faculty.
- viii. Candidates must present transcript of academic performance adjudged suitable for admission into comparable postgraduate or similar professional programmes.
- ix. Candidate must be recommended by at least two Fellows of the College, who shall attest to the candidate's professional experience and conduct.

1.2.2 To be admitted directly into the third year of the Fellowship programme of the College, the candidate must have, in addition, a postgraduate degree or an equivalent qualification in the relevant Faculty.

### **1.3 AWARD OF COLLEGE FELLOWSHIP POSTGRADUATE DIPLOMA**

For consideration of the award of a Postgraduate Fellowship Diploma, the candidate must satisfy all academic requirements prescribed by the College.

#### **1.3.1 Regular Fellowship:**

This Fellowship is awarded to Residents who have undergone the mandatory College tutelage as outlined in the College prospectus.

#### **1.3.2 Discretionary Fellowship:**

The College may, on the recommendation of the Senate, award Discretionary Fellowship Diploma, to Senior Veterinarians such as Professors of at least 15 years; Chief Veterinary Officer of the Federation, Registrar of the Veterinary Council and State Directors of Veterinary Services who have contributed to the development of the College and Veterinary Medicine, and subject to fulfilling conditions to be set by the Senate.

#### **1.3.3 Honorary Fellowship:**

The College may, on the recommendation of the Senate award Honorary Fellowship (Honoris causa) to persons of distinction in academia or the Community, who are not Veterinary Surgeons but have contributed significantly to the development of Veterinary Medicine

The holder of a Diploma awarded by the College shall be entitled to the status of a: -

- (a) Fellow, in the Specialty
- (b) Consultant, in the Specialty

Certificate of Postgraduate Fellowship Diploma of the College, shall be as prescribed by the Board and shall bear the seal of the College signatures of the Provost, the Secretary and date.

## **1.4 TRAINING AND EXAMINATION**

### **1.4.1 Duration of Training**

The minimum duration before enrolment for the Fellowship training is 3 years post-DVM qualification. All programmes are to run on part-time basis, provided the mandatory course Credit Units as specified by each Faculty are met. The minimum and maximum periods for the training of Fellowship is 5 and 8 years, respectively.

### **1.4.2 Examinations**

Examinations are to be administered at the end of each year of the programme.

- (a) Each examination shall consist of written, oral and practical components as appropriate.
- (b) All examinations shall be unified but venues decentralised.
- (c) There shall be an oral PowerPoint project presentation based on each Faculty's minimum, prescribed number of case reports, which must be published in recognized journals (preferably institutional or national association journals) by each Resident.

### **1.4.3 Credit Units**

The credit units for the two categories are as follows:

The total credit units for each year of study shall be as prescribed in the prospectus for the corresponding Faculty and Specialty.

### **1.4.4. Examination Results**

- (a) For each examination, 50% is a pass mark.

No candidate shall be allowed to attempt any examination for more than three times. Thereafter, such a candidate shall be withdrawn from the programme. For a Resident to remain in the programme, he/she must either register after paying the prescribed fees or obtain a valid deferment.

### **1.4.5 Other Training Requirements**

- (a) All candidates for examinations shall produce evidence of participation in the training course certified by their respective supervisors.
- (b) In all examination continuous assessment of students should form part of the result and should constitute 30 – 40% of the total score.

#### **1.4.6 Training and Residency**

There shall be a compulsory first and second semester period of a minimum of twelve weeks each, every academic session. The Clinic activity of the Residents shall be documented in a log book signed by the designated supervisor.

The training programme of the College for the Faculties shall comprise of:

- a) 12 weeks of virtual (online) facilitation in the first semester.
- b) 12 weeks of virtual (online) facilitation in the second semester.
- c) 4 weeks on on-campus residency in the Study Centre in September
- d) 12 weeks of Clinic activity (min 16hrs weekly) in the first semester at an approved Clinical Training Centre (CTC)
- e) 12 weeks of Clinic activity (min 16hrs weekly) in the second semester at an approved Clinical Training Centre (CTC)

### **1.5 PROGRAMME ADMINISTRATION AND EXAMINATION BOARD**

#### **1.5.1 Board of Examiners**

There shall be a Board of examiners whose members must be Fellows of the Faculty. No College Resident shall be eligible to serve as a Facilitator or examiner. This is without prejudice to the appointment of recognized and professional Consultants in special cases at the discretion of the Faculty.

#### **1.5.2 Supervisory Committee**

The Resident will be assigned to a Supervisory Diplomate (Supervisor) in the 4<sup>th</sup> year of study. The Supervisor of the candidate shall in accordance with College (CVSN) Senate review or approve guidelines often submit from the respective Faculty panels for consideration and submission to the College Board for its consideration and final determination.

#### **1.5.3 Resident's Mentor**

Each Resident shall consult and obtain consent of a Senior Fellow who shall serve as his/her mentor throughout the duration of the study.

The Mentor shall be responsible for monitoring the Resident's training programme based on the curricular objectives, ascertainable experience as well as needs of the candidate. The training programme must be compatible with teaching, clinical and laboratory services, as well as research activities of the Faculty. The proportion of time needed to rotate (where required) through the component areas of training programme shall be determined by the Mentor and Centre Supervisors.

### **1.5.3 Academic programme Delivery**

Online Lectures/Facilitation:

Lectures shall be online on the corresponding Faculty's Teams or Zoom platform. A back-up video class is also available on the College Learning Management system (LMS) serving as a backup.

### **1.5.3 College Senate**

The Senate of the College from time to time shall inspect and determine the status of the facilities and personnel for the College programmes through the evaluation of the submissions and visits by the Senate inspection teams.

## **1.6 VENUES AND AVAILABLE FACILITIES**

### **1.6.1 General Facilities**

- (a) Faculties/ Colleges of Veterinary Medicine.
- (b) VTH clinical and ambulatory facilities
- (c) Diagnostic Laboratory support services including NVRI, Vom.
- (d) Selected Government and private veterinary hospitals.
- (e) University and government farms
- (f) Private livestock and poultry farms
- (g) Appropriate teaching and research equipment.

### **1.6.2 Personnel**

- (a) Academic Staff who are Fellows of the College.
- (b) Fellows of other related disciplines such as Human Medicine
- (c) Guest lectures/trainers

### **1.6.3 Venues:**

#### **A. College Central Administration:**

The Central administration of the College is currently hosted in the Veterinary Council of Nigeria building. The offices of all Principal Officers of the college are located in the VCN Building.

#### **Activities:**

- i. Coordination of all College activities.
- ii. Management of College finances.
- iii. College Secretariate handling all College correspondences.
- iv. Central coordination of examinations
- v. Central coordination of virtual lectures/facilitation.
- vi. Convocation.

## B. College Study Centres:

College Study Centres are administrative Centres for the coordination of selected college activities in the various location around the country. There are currently 8 Study Centres as presented in the accompanying table and the Specialties supervised by these Centres. Additional Study Centres may however be approved over time as the need arises.

Activities of each Faculty at the Centre are coordinated by the Faculty Study Centre Supervisor. The Supervisors along with the corresponding VTH Director constitute the Study Centre Management Committee chaired by the VTH Directed and assisted by the Chairman/Chairperson of the Supervisors.

*Table 1: Study Centres of the College of Veterinary Surgeons Nigeria (CVSN)*

S/No	Study Centre	Faculty	Option/Specialty		
1.	<b>Ahmadu Bello University, Zaria.</b>	Medicine	Clinical Pharmacology & Toxicology		
			Large Animal Medicine		
			Small Animal Medicine		
			Aquatic, Laboratory Animal & Wildlife Medicine		
			Avian Medicine		
		Pathology	Clinical Pathology		
			Diagnostic Pathology		
			Microbiology		
			Parasitology		
		Public Health & Preventive Medicine	Public Health		
			Preventive Medicine		
			Food Safety		
			Epidemiology		
		Surgery	Anaesthesiology		
			Diagnostic Imaging		
			Large Animal Surgery		
			Small Animal Surgery		
			Theriogenology		
		2.	<b>University of Ibadan, Ibadan</b>	Medicine	Clinical Pharmacology & Toxicology
					Large Animal Medicine
Small Animal Medicine					
Avian Medicine					
Aquatic, Laboratory Animal & Wildlife Medicine					
	Clinical Pathology				

		Pathology	Diagnostic Pathology
			Microbiology
			Parasitology
		Public Health & Preventive Medicine	Public Health
			Preventive Medicine
			Food Safety
			Epidemiology
		Surgery	Anaesthesiology
			Large Animal Surgery
			Small Animal Surgery
			Theriogenology
3.	University of Nigeria, Nsukka.	Medicine	Clinical Pharmacology & Toxicology
			Large Animal Medicine
			Small Animal Medicine
			Aquatic, Laboratory Animal & Wildlife Medicine
			Avian Medicine
		Pathology	Clinical Pathology
			Diagnostic Pathology
			Microbiology
			Parasitology
		Public Health & Preventive Medicine	Public Health
			Preventive Medicine
			Food Safety
			Epidemiology
		Surgery	Theriogenology
			Small Animal Surgery
4.	National Veterinary Research Institute Vom/ University of Jos, Jos	Medicine	Clinical Pharmacology & Toxicology
			Small Animal Medicine
			Avian Medicine
			Aquatic, Laboratory & Wildlife Medicine
		Pathology	Diagnostic Pathology
			Parasitology
			Microbiology
		Public Health & Preventive Medicine	Public Health
			Food Safety
			Epidemiology

		Surgery	Small Animal Surgery
5.	University of Maiduguri/SAS Veterinary Hospital, Maiduguri.	Medicine	Clinical Pharmacology & Toxicology
			Large Animal Medicine
			Aquatic, Laboratory & Wildlife Medicine
			Avian Medicine
		Pathology	Clinical Pathology
			Diagnostic Pathology
			Microbiology
			Parasitology
		Public Health & Preventive Medicine	Public Health
			Food Safety
			Epidemiology
Surgery	Large Animal Surgery		
	Theriogenology		
6.	Usmanu Danfodiyo University, Sokoto/State Veterinary Hospital, Sokoto.	Medicine	Small Animal Medicine
			Avian Medicine
		Public Health & Preventive Medicine	Public Health
			Preventive Medicine
		Surgery	Small Animal Surgery
			Theriogenology
7.	University of Abuja, Abuja.	Medicine	Avian Medicine
			Clinical Pharmacology & Toxicology
		Pathology	Microbiology
			Parasitology
		Public Health & Preventive Medicine	Public Health
			Preventive Medicine

**Activities:**

- i. Registration and documentation of Residents.
- ii. Coordination of Clinical training in all Clinical Training Centres being supervised by the said Study Centre.
- iii. Coordination of projects of Residents registered in the corresponding Study Centre.
- iv. Coordination of local seminars at the Study Centres.
- v. Verification, endorsement and scoring Clinic Logbooks.



- vi. Coordination of examinations for Residents registered in the Centre.
- vii. Coordination and delivery of the September/October Clinic/Practical residency activities on campus.

### **C. Clinical Training Centres**

There are currently over 20 provisionally approved Clinical Training Centres comprising of all accredited Veterinary Teaching Hospital, selected State Veterinary Hospitals as well as selected private practices. Residents are at liberty to undertake part of their Clinical Training in relevant Human Diagnostic/Medical facilities e.g. Diagnostic laboratories, Diagnostic Imaging Centres, MDAs as maybe considered relevant.

Residents domiciled outside Nigeria in the non-practice Specialties may also participate in the College activities, special arrangement for their examination shall be at the expense of the Residents. Evidence of registration to practice in the country of domicile must be provided where a Resident intends to undertake training in any of the practice-based Specialties.

#### **Activities:**

1. Coordination and supervision of Clinical training
2. Endorsement of Clinic Logbooks and Clinic Activity Reports
3. Preparing Residents for examinations

### **1.7 METHOD OF APPLICATION**

College programmes shall be advertised annually, suitably qualified candidates may apply in response to such advertisements. Application forms shall be electronically filled and submitted virtually through the College portal.

#### **Application Procedure:**

- i. Advertisements shall be made in 2 National dailies within which all applicants shall be referred to the College Application portal.
- ii. Applicants are to fill the Application Forms online and submit.
- iii. Scanned copies of all credentials are to be attached
- iv. The application fee is to be paid into the College TSA account as provided from time to time.
- v. Once payment has been verified, Application forms shall be forwarded to the corresponding Head of Faculty for consideration of the Faculty Admission Committee.
- vi. If approved, an Admission letter is autogenerated and sent to the applicant.
- vii. The applicant is to pay the necessary registration fee (half or in full).

viii. After verification of fee payment, details of the applicant are uploaded onto the LMS where he/she can access posted contents as well as autogenerate an examination slip without which the Resident would be denied access to examination venues/absent on the CBT portal for the examinations.

### **1.8 COURSE APPLICATION FEES/CHARGES.**

As would be stated in the advertisement, but would be subject to changes periodically. For now, the fees are as follows

(a). Application Fee	=	₦25,000.00
(b). Tuition Fees (Annually)	=	₦200,000.00
(c) Examination Fees (Annually)	=	₦70,000.00
(d) Resit examination	=	₦30,000.00

Note:

- Candidates shall be responsible for their transport, accommodation and feeding.
- These fees are subject to periodic review

### **1.9 ADMINISTRATION AND MANAGEMENT OF THE COLLEGE**

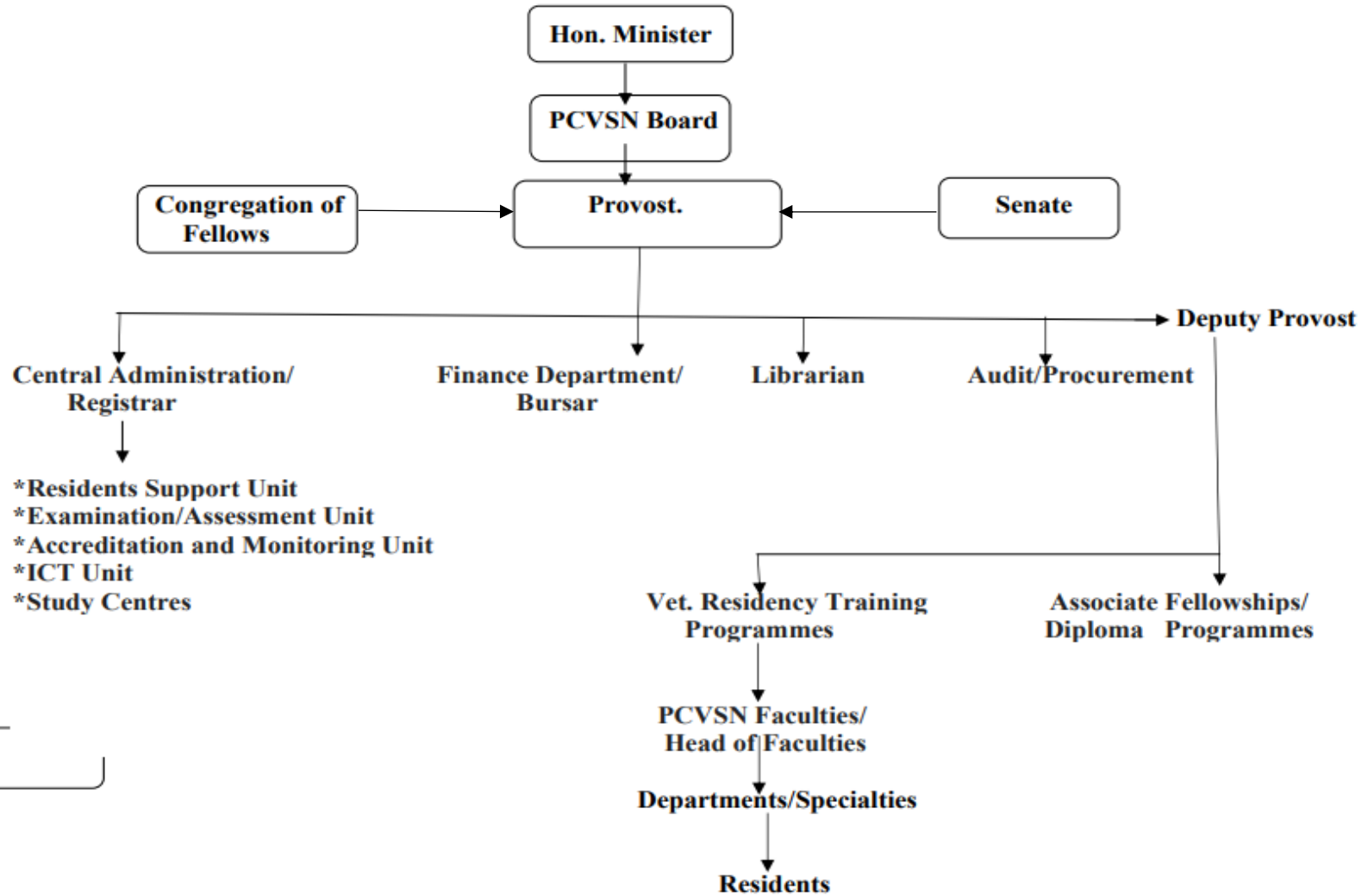
The Veterinary Council of Nigeria, for now, remains the financier and coordinating government agency for the College. There is at the moment for the purpose of directly administering the College Programmes an Interim Management Committee, an Interim College Senate, Faculty Academic Board as well as an Ag. Provost and Ag. Heads of Faculties. The Secretariat of the College is being overseen by the College Secretary and an Administrative Officer.

The administrative and management structure of the College consists of the following:

- (a) College Board
- (b) College Senate
- (c) Congregation of Fellows
- (d) College Management

The academic and professional activities of the College shall be supervised by the Senate. The College Board shall be responsible and accountable to the Hon. Minister of Agriculture. An organogram of the College is presented in the accompanying figure.

**PROPOSED PCVSN ORGANOGRAM**



## ANNUAL 2024 PLANNER/SCHEDULE OF CVSN ACADEMIC ACTIVITIES

S/No	ACTIVITY	DURATION	2024 SESSION											
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
1	Interim Board Meeting	1 Dy												
2	Admission & Registration	8 Wks												
3	Virtual Orientation	1 Dy												
4	Virtual Lectures Semester 1	12 Wks												
5	Semester 1 Clinics	12 Wks												
6	Semester 1 Break	2 Wks												
7	Virtual Lectures Semester II	12 Wks												
8	Semester 2 Clinics	12 Wks												
9	Semester 2 Break	2 Wks												
10	Study Centre September Residency	4 Wks												
11	Revision/Exams	2 Wks												
12	Resit Exams	1Wk												

**KEY**

- 1- 17/01/24
- 2- 20/01 – 28/02/24
- 3- 12/02/24
- 4- 13/02 – 10/05/24

- 5- 13/02 – 10/05/24
- 6- 13/05 – 26/05/24
- 7- 27/05 – 16/08/24
- 8- 27/05 – 16/08/24

- 9- 18/08 – 31/08/24
- 10- 02/09 – 27/09/24
- 11- 07/10; 14/10 – 18/10/24
- 12- 11/11 – 15/11/24

## **1.10 APPLICATION AND ADMISSION PROCEDURE**

### **1.10.1 Procedure:**

1. Advertisement of the programmes within the last quarter in the preceding session.
2. Download, filling and submission of the online Application Form by applicants.
3. Payment of application fee
4. Certification of payment by College Secretariate.
5. Forwarding application forms to the corresponding Faculty Head
6. Consideration of application by the corresponding Faculty Admissions Committee
7. Presentation, consideration and approval of the recommended admission list to the College Senate/Academic Board.
8. Publication of the admission list and online delivery of admission letters
9. Fee payment & online registration for the corresponding session.

## **1.11 ADMISSION REQUIREMENTS**

Although the College specifies the benchmark for admission into the Fellowship programmes, individual Faculties/Specialties are at liberty to require additional qualifications for admission, as the need may arise.

### **1.11.1 Admission into Year 1**

1. DVM or equivalent
2. Valid registration with the VCN
3. Minimum of 3 years relevant post-graduation experience.
4. NYSC Discharge Certificate or Exemption Letter.

### **1.11.2 Admission into Year 3**

1. DVM plus Fellowship Part I Diploma or a relevant MSc degree
2. Minimum of 5 years post-graduation experience.
3. Valid registration with the VCN
4. NYSC Discharge Certificate or Exemption Letter.

## **1.12 RESIDENTS PROJECT ADMINISTRATION**

As part of the training, the resident should complete an investigative project that contributes to the advancement of veterinary practice or clinical investigation. The allocation of a Supervisor shall be at the commencement of Year 3 of the programme.

At the end of Year 5, all projects are to be defended.

### **1.12.1 Project Management:**

1. Two Supervisors shall be assigned to year 3 Residents in semester 1.
2. Students are to discuss (with their supervisor) their proposed clinical/investigative work.
3. Projects are to be undertaken within the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Year of study.
4. Two clinical cases/investigations are to be thoroughly worked up and published in an acceptable professional journal (institutional or national association journals) in each of the 3 terminal years of study.
5. Students MUST communicate the progress of their work to the supervisor every semester.
6. Upon completion of the project, a request shall be sent to the Centre Supervisor through the Project Supervisor on the readiness of the student to defend his/her project.

7. Project defenses are to be conducted (hybrid) at the next examination from the corresponding Study Centre.
8. The 6 publications made are to be bound and 4 copies of the bound Project report are to be submitted (within 3 months of a successful defense) for endorsement viz.: student, supervisor, Study Centre Library and CVSN Secretariat copies.

**N.B:** Project grades shall remain INCOMPLETE until bound copies of the endorsed Project report is forwarded to the Centre Supervisor and scores collated then forwarded to the Head of Faculty.

### 1.12.2 The project cover colour:

- i. Black for Pathology Faculty
- ii. Green for Public Health & Preventive Pathology Faculty
- iii. Maroon for Pathology Faculty
- iv. Grey/Ash for Surgery faculty

### 1.12.3 Sequence of Project Reporting:

- |   |                                 |                |
|---|---------------------------------|----------------|
| <ol style="list-style-type: none"> <li>1. Cover page</li> <li>2. Title page</li> <li>3. Declaration page</li> <li>4. Certification page</li> <li>5. Acknowledgment</li> </ol>   | } All in single or 1.15 spacing |                |
| <ol style="list-style-type: none"> <li>6. Abstract (Maximum of 300 words/1 page)</li> <li>7. Table of Content (Should reflect only the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> tiers of the headings)</li> <li>8. List of Figures</li> <li>9. List of Tables</li> <li>10. List of Plates</li> <li>11. List of Appendices</li> <li>12. Abbreviations, Definitions, Glossary and Symbols</li> </ol> | } 1.5 or double spacing         |                |
| <ol style="list-style-type: none"> <li>13. Introduction (Preamble, Statement/Justification, Aims and Objectives of the Project work)</li> </ol>   |                                 | Double spacing |
| <ol style="list-style-type: none"> <li>14. Article 1</li> <li>15. Article 2</li> <li>16. Article 3</li> <li>17. Article 4</li> <li>18. Article 5</li> <li>19. Article 6</li> </ol>  |                                 |                |
| <ol style="list-style-type: none"> <li>20. Conclusion, Recommendation and Summary</li> </ol>  |                                 | Double spacing |

---

**Cover page**

The cover page shall indicate (in upper case only) the:

- TITLE OF THE PROJECT
- NAME OF THE STUDENT (SURNAME LAST)
- FACULTY AND COLLEGE NAME
- MONTH/YEAR CORRECTIONS CERTIFIED

---

**Title page**

The following shall be on the title page (in upper case only):

- TITLE OF PROJECT
- NAME OF THE STUDENT (SURNAME LAST) WITH QUALIFICATIONS
- REGISTRATION NUMBER

---

**Followed by:**

A PROJECT REPORT SUBMITTED TO THE \_\_\_\_\_ FACULTY, COLLEGE OF VETERINARY SURGEONS NIGERIA IN PARTIAL FULFILMENT FOR THE AWARD OF FELLOWSHIP DIPLOMA (\_\_\_\_\_), COLLEGE OF VETERINARY SURGEONS NIGERIA.

-Month and Year of Certification of correction

---

**Declaration page**

The following wordings (in sentence case) are to be reflected on the Declaration page:

I declare that the work/publications in this Project report entitled \_\_\_\_\_ has been performed by me. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this Project report was previously presented for another Certificate, Degree or Diploma at this or any other Institution.

---

Name of Resident

---

Signature

---

Date

---

**Certification page**

The following wordings (in sentence case) are to be reflected on the Certification page:

This Project report entitled \_\_\_\_\_ (in upper case) by \_\_\_\_\_ (surname last and in upper case) meets the regulations governing the award of Fellow, College of Veterinary Surgeons Nigeria, and is approved for its' contribution to knowledge and literary presentation.

(Name) \_\_\_\_\_ (Signature) \_\_\_\_\_ Date \_\_\_\_\_  
Project Supervisor

(Name) \_\_\_\_\_ (Signature) \_\_\_\_\_ Date \_\_\_\_\_  
Project Supervisor

(Name) \_\_\_\_\_ (Signature) \_\_\_\_\_ Date \_\_\_\_\_  
Head of Faculty/Study Centre Supervisor

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### **Acknowledgment**

The acknowledgement should contain a brief note of appreciation to all those who contributed to the success of the study.

---

### **Abstract**

The abstract should not exceed 300 words which approximates 1 page. It should be typed double spaced using Times New Roman characters, font size of 12 and margins justified.

Abstract should be brief indicating the statement of the clinical/investigative work, objectives of significant contributions and conclusions.

---

### **Table of Content**

This is a listing of the various sections and subsections of the Project report indicating the pages they occur. The table of contents should be double spaced. If the title of a section runs more than one line, subsequent lines are single spaced and not indented.



The table of contents should reflect only the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> tiers of the headings. Whereas 1<sup>st</sup> level headings are to be in upper case and bold, 2<sup>nd</sup> level headings should be in a title case and also bold. Third level headings should not be bold and in a sentence case.

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### **List of Figures, Tables, Plates and Appendices**

Where the title of the figure, table, plate or appendix runs more than one line, subsequent lines are single spaced and not indented.

---

### **Abbreviations, Definitions, Glossary and Symbols**

All abbreviations and symbols used should be explained. Terms used can also be presented as a glossary.

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#### **Article/Publication 1:**

Photocopy of 1<sup>st</sup> relevant publication in year 3 of the programme.

#### **Article/Publication 2:**

Photocopy of 2<sup>nd</sup> relevant publication in year 3 of the programme.

#### **Article/Publication 3:**

Photocopy of 1<sup>st</sup> relevant publication in year 4 of the programme.

#### **Article/Publication 4:**

Photocopy of 2<sup>nd</sup> relevant publication in year 4 of the programme.

#### **Article/Publication 5:**

Photocopy of 1<sup>st</sup> relevant publication in year 5 of the programme.

#### **Article/Publication 6:**

Photocopy of 2<sup>nd</sup> relevant publication in year 5 of the programme.

### **Summary, Conclusion and Recommendations**

The summary should present highlights of each publication within a paragraph each. The conclusions should give an inference drawn from the findings in the cases presented. Challenges encountered during the study should be indicated. Conclusions should be drawn on the basis of the publications presented and analysed.

Recommendations should be based on the major findings of the study and stated in precise terms. It should list possible ways of solving problems identified as well as highlight areas for further study.

*PART 2*

*PUBLIC HEALTH &  
PREVENTIVE MEDICINE  
FACULTY*

## INTRODUCTION

Veterinary Public Health and Preventive Medicine is an important aspect of Veterinary curriculum. Veterinary Public Health has been described by the WHO (2002) as; “the sum of all contributions to the physical, mental and social well-being of humans through an understanding and application of veterinary science”. The Public Health Diploma Faculty of the College of Veterinary Surgeons Nigeria therefore seeks to improve both animal and human health for enhanced economic and social development of modern society.

There are Four specialized areas to be considered for the membership and fellowship viz.

- a. Public Health
- b. Preventive Veterinary Medicine
- c. Epidemiology
- d. Food Safety

## 2.1 TRAINING VENUE AND FACILITIES

### 2.1.1 Study Centres

The Ahmadu Bello University, Zaria, University of Nigeria, Nsukka, University of Ibadan, University of Maiduguri, Usmanu Danfodiyo University and University of Jos/NVRI and University of Abuja Study Centres are approved Study Centres for the Public Health Faculty.



Fig. 2.1: Zaria Study Centre, Ahmadu Bello University, Zaria.

### 2.1.2 CONTACTS

#### Public Health & Preventive Medicine Ag. Head:

Name; Prof. E.V. Ezenduka

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E-mail: [ekene.ezenduka@unn.edu.ng](mailto:ekene.ezenduka@unn.edu.ng)

#### Public Health & Preventive Medicine Supervisors

##### Zaria/ABU Study Centre:

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Ahmadu Bello University, Zaria.  
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**Nsukka/UNN Study Centre**

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**Ibadan/UI Study Centre**

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University of Ibadan  
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**Usmanu Danfodiyo University/State Veterinary Hospital, Sokoto**

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**University of Abuja, Abuja.**

Prof. Simon Enem  
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University of Abuja, Abuja  
Phone No: 08033386936  
E-mail: [simon.enem@uniabuja.edu.ng](mailto:simon.enem@uniabuja.edu.ng)

## 2.2 SPECIALTY/OPTION COORDINATORS (HODs)

### Public Health

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### Preventive Medicine

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## 2.3 TRAINING OBJECTIVES

### General:

- a. To provide opportunity for manpower specialists, development programmes to meet national needs in areas of food safety and disease surveillance and control.
- b. To equip candidates with a high level of specialization in Veterinary Public Health and Preventive Medicine for effective participation in national and international organizations.
- c. To generate and disseminate information on recent advances in Veterinary Public Health and Preventive Medicine.

## 2.3 PROGRAMME DESCRIPTION

### 2.3.1 Clinics Management

Supervised training implies interaction between trainee and supervisor during the investigative work or other relevant activity as well as during related discussions, etc. Such supervision requires the simultaneous physical presence of both trainee and supervisor site of the activity. The amount of supervision required will vary with the experience, skill and knowledge of the trainee.

Clinical training for the Public Health & Preventive Medicine Faculty shall consist of:

1. Minimum of 16hrs of Clinics/week for 12 weeks in Semester 1.
2. Minimum of 16hrs of Clinics/week for 12 weeks in Semester 2.
3. Clinical Procedures/Practical (September/October Residency)
4. Monthly virtual Clinical seminar presentations
5. Publication of 2 cases/activities per session for Year 3, 4 & 5.

All Resident trainees are to participate in relevant clinical activities within the 3 months of each semester in an approved Clinical Training Centre. A minimum of 16Hrs per week shall be the minimum acceptable Clinic time. The following facilities are recommended for the Semester Clinical Training:

- i. Veterinary Teaching Hospitals.
- ii. Veterinary and Allied research Institute with Fellows in their employment such as NVRI Vom, NAPRI Shika etc.
- iii. State Central Veterinary Hospitals (State Capitals)
- iv. Accredited Private Veterinary Clinics/Hospitals.
- v. Public Health Depts at State or Federal levels
- vi. Abattoirs
- vii. Food processing facilities etc.

Emphasis shall be on the student managing and reporting relevant cases/activities in his/her specialty. The following are suggested for the assessment of students in Clinics;

1. The immediate supervising veterinarian/officer shall countersign cases reported by the Resident in the Logbook.
2. The Mentor should visit the student at site whenever possible to assess the resident's conduct and participation.
3. Residents should write up at least 2 cases for publication within each such session which would be graded by the Project Supervisor in the Final year.

The Clinical Procedures logbook shall be used for the documentation and accomplishment of the various tasks and development of skills by the Year 1 & 2 Residents only.

The relevant sections are to be signed by the supervising veterinarian. Trainees are expected to successfully undertake a minimum of 80% of the procedures listed in the Clinical Procedures logbook before graduation. The various activities can be undertaken anytime within the 5 years of training. In all cases however a registered veterinarian (preferably a Fellow) must certify to the proficiency of the student in each of the supervised tasks/skills.

### **2.3.2 Guidelines for Public Health & Preventive Medicine Faculty Residents Clinical Engagement:**

1. All Public Health & Preventive Medicine Faculty students are to dress appropriately and conduct themselves responsibly in Clinics/Surgery.
2. All Public Health & Preventive Medicine Faculty students are to participate in the Clinics (Semester Clinics & Sept/October Residency)

3. Relevant cases/activities attended to, are to be documented and endorsed in the corresponding Clinical Activity Logbook, this shall be submitted to the Study/Clinical Training Centre Coordinator at the end of the Semester for grading.
4. Records of attendance at the clinics are to be endorsed daily by the Supervising Veterinarian/Officer.
5. Students are to actively participate in the activity/case presented especially relevant cases to their Specialty/option of study.

### **2.3.3 September/October Residency Clinics**

Supervised Clinical/practical sessions shall be undertaken in Sept/October each session. All Residents are expected to participate in this exercise.

All residents are to ensure that once they have achieved proficiency in the corresponding Clinical Skill, they should demonstrate same to a supervising Fellow who shall thereafter endorse the relevant component of the Skill Acquisition Logbook. ***Residents shall only be deemed to have met Clinical Skill requirements for graduation after demonstrating a minimum of 80% of the listed procedures in his/her Specialty.***

The listed clinical activities/practical sessions/demonstrations shall be undertaken and or discussed during the Sept/October Residency.

### **PUBLIC HEALTH & PREVENTIVE MEDICINE FACULTY**

- Ability to identify fish & meat spoilage
- Fish preservation methods
- Performance of residue screening tests
- Plate test (TPT & FPT)
- Tube tests (Premi@test)
- Identification of ELISA Reader, interpret ELISA plate for residue test
- Extrapolate and calculate drug concentrations
- Identification of different kinds of fish in different water types
- Identification of fish diseases (bacterial, viral and parasitic origin),
- Setting and management of a veterinary establishment (Veterinary Hospital, Laboratory & Practice Premises)
- Ability to use the following applications for proper disease investigation
  - a. TAD info;
  - b. GPS instruments;
  - c. Arch view GIS
- Identification of different animal by-products and their proper beneficial utilisation
- Design of slaughterhouse and a modern abattoir
- Design of a (hypothetical) study using any of the types of epidemiological study methods including statistical analyses
- Use of Access software that could be used in any veterinary practice, management of veterinary clinics, herd health management e.g

- Ability to identify and differentiate good and/bad milk
- Demonstrate hygienic milking procedure
- Perform the following milk tests and name the conditions:
  - Brucella milk test;
    - CMT;
    - strip cup test
    - Bromocresol purple test
    - Bromo thymol blue test
    - White side test
    - Brucelisa;
  - Perform microbial load determination (TCC and TAPC) on critical points of contamination:
    - On meat, meat contact surfaces
  - Calculation of CFU and interpretation of results
  - Performing market analysis on a veterinary /livestock industry and production of a business plan fit for presentation to a venture capitalist
  - Data analysis using: SPSS, STATA, Epi-Info, graph pad and Open-Epi.
  - Visit a field in any chosen area and demonstrate ability to offer extension services to: Farmers, meat sellers, butchers etc.

## **2.4 LECTURES, PRACTICAL AND EXAMINATIONS**

### **2.4.1 Programme Course and Credit Unit Allocations**

1. The minimum duration of training for entrants to Years 1 & 3 Fellowship programmes shall be 5 and 3 years respectively.
2. Written examinations, Clinics/practical, presentations, publications as well as assessment of relevant Logbooks (as applicable) shall be the modality for assessment of Residents.

### **2.5.2 Examinations**

There shall be uniform criteria for the assessment of Trainees.

1. Examinations shall be conducted at the end of every session.
2. All courses shall be graded over 100%
3. For all examinations:
  - a. < 50% = Fail
  - b. 50-59% = C Pass
  - c. 60-69% = B Good
  - d. > 70% = A Excellent
4. For Clinic grading: 30% = Sessional Clinic Report/Logbooks  
 30% = Sept/October Residency  
 40% = End of session exams (Oral, Facility identification & Demonstrations)



## 2.5 SEMINARS, CONFERENCES AND PUBLICATIONS

1. All Residents from years 3 – 5 of study are to develop 2 cases/activities attended to every session and publish them in either institutional journals or National Association journals as their project.
2. All Project write-ups for Publications shall be Case Reports/investigations/activities encountered within the corresponding period of the Study.
2. Faculty virtual Seminars shall be decentralized and held monthly from the corresponding Study Centre.
- 3 VTH Directors, Study Centre Supervisors, Specialty/Option Coordinators and other Resource Persons as well as all Residents are to participate in the Seminars.
- 4 Publication printouts are to be bound and submitted to the Project Supervisor for assessment and necessary grading prior to the final defence.

N.B: Seminar and Conference presentations or publications preceding admission into the Fellowship programme are not eligible for presentation/assessment/grading as Project.

The resident while gaining experience in practice is also expected to prepare and present work at larger scientific meetings and conferences. Residents are thus encouraged to present their writeups at relevant seminars before publication.

The resident is expected to complete an investigative study on the cases/activity handled, the outcome of which should be publishable in a peer reviewed/refereed scientific journal (National Association or Institutional Journal)

Review articles, textbook chapters and short communications will not qualify as a contribution to the publication requirements. If a paper has not been published at the time of assessment, an acceptance letter shall suffice.

## 2.6 LIST OF PUBLIC HEATH & PREVENTIVE MEDICINE COURSES

### FELLOWSHIP I

#### Public Health and Preventive Medicine

##### *Year 1:*

##### **Semester 1:**

**VPH 811:** Meat Hygiene, by-product and utilization

**VPH 813:** Epidemiology

**VPM 811:** Computer Applications in Veterinary Practice

**VPM 813:** Economics of Disease Control and Veterinary Projects

**VPH 819A:** Public Health clinics 1A

##### **Semester 2:**

**VPH 812:** Abattoir Design and Management

**VPM 812:** Veterinary Ethics and Jurisprudence

**VPM 814:** Immunology

**VPH 814:** Introduction to Biorisk Management

**VPH 819B:** Public Health clinics 1B

##### *Year 2*

##### **Semester 1:**

**VPH 821:** Veterinary Environmental Health

**VPH 823:** Food safety I

**VPM 821:** Veterinary Entrepreneurship

**VPH 829A:** Public Health clinics II A

##### **Semester 2:**

**VPH 822:** Biostatistics  
**VPH 824:** Zoonoses  
**VPM 822:** Veterinary Extension services  
**VPH 829B:** Public Health clinics II B

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## **FELLOWSHIP II**

### **Year 3 (Public Health specialty)**

#### **Semester 1:**

**VPM 831:** Research Methods  
**VPH 831:** Biorisk Characterization and Evaluation; Mitigation Strategies and Performance  
**VPH 833:** Occupational and Environmental Health  
**VPH 839A:** Public Health clinics III A

#### **Semester 2:**

**VPH 832:** Emerging Zoonoses and Transboundary diseases  
**VPM 832:** Veterinary Jurisprudence  
**VPH 834:** Neglected Tropical diseases  
**VPH 835B:** Public Health clinics III B

### **Year 4 (Public Health specialty)**

#### **Semester 1**

**VPM 841:** Public Health, Hospital and Practice Administration  
**VPM 843:** Emergency Preparedness  
**VPH 849A:** Public Health clinics IV A

#### **Semester 2**

**VPH 841:** Global health at the Human and Animal Ecosystem Interface  
**VPH 842:** Animal Health Information system  
**VPH 849B:** Public Health clinics IV B

### **Year 5 (Public Health specialty)**

#### **Semester 1**

**VPH 851:** Seminar/Problem discussions  
**VPH 859A:** Public health Clinics V A

#### **Semester 2**

**VPH 852:** Project  
**VPH 859B:** Public health Clinics V B

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### **Year 3 (Food Safety specialty)**

#### **Semester 1**

**VPM 831:** Research Methods  
**VPH 831:** Biorisk Characterization and Evaluation; Mitigation Strategies and Performance  
**VFS 831:** Fish Hygiene, Control and Prevention of fish diseases  
**VFS 839A:** Food Safety clinics III A

#### **Semester 2:**

**VPH 832:** Emerging Zoonoses and Transboundary diseases  
**VPM 832:** Veterinary Jurisprudence  
**VFS 832:** Food Safety II  
**VFS 839B:** Food Safety clinics III B

### **Year 4 (Food Safety specialty)**

#### **Semester 1**

**VPM 841:** Public Health, Hospital and Practice Administration  
**VPM 843:** Emergency Preparedness  
**VFS 849A:** Food Safety clinics IV A

#### **Semester 2**

**VFS 841:** Milk and Dairy Products  
**VFS 842:** Meat Microbiology  
**VFS 849B:** Food Safety clinics IV B

### **Year 5 (Food Safety specialty)**

#### **Semester 1**

**VPH 851:** Seminar/Problem discussions  
**VFS 859A:** Food Safety clinics V A

#### **Semester 2**

**VPH 852:** Project  
**VFS 859B:** Food Safety clinics V B

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### **Year 3 (Epidemiology specialty)**

#### **Semester 1:**

**VPM 831:** Research Methods

**VPH 831:** Biorisk Characterization and Evaluation; Mitigation Strategies and Performance

**VE 831:** Advanced Epidemiology

**VE 839A:** Epidemiology Clinics III A

**Semester 2:**

**VPH 832:** Emerging Zoonoses and Transboundary diseases

**VPM 832:** Veterinary Jurisprudence

**VE 812:** Disease Surveillance

**VE 839B:** Epidemiology Clinics III B

**Year 4 (Epidemiology specialty)**

**Semester 1**

**VPM 841:** Public Health, Hospital and Practice Administration

**VPM 843:** Emergency Preparedness

**VE 849A:** Epidemiology Clinics IV A

**Semester 2**

**VE 841:** Molecular Epidemiology

**VPH 842:** Animal Health Information system

**VE 849B:** Epidemiology Clinics IV B

**Year 5 (Epidemiology specialty)**

**Semester 1**

**VPH 851:** Seminar/Problem discussions

**VE 859A:** Epidemiology Clinics V A

**Semester 2**

**VPH 852:** Project

**VE 859B:** Epidemiology Clinics V B

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**Year 3 (Preventive medicine specialty)**

**Semester 1:**

**VPM 831:** Research Methods

**VPH 831:** Biorisk Characterization and Evaluation; Mitigation Strategies and Performance

**VPM 833:** Herd Health Management

**VPM 839A:** Preventive Medicine Clinics III A

**Semester 2:**

**VPH 832:** Emerging Zoonoses and Transboundary diseases

**VPM 832:** Veterinary Jurisprudence

**VPM 834:** Veterinary quarantine services

**VPM 839B:** Preventive Medicine Clinics III B

**Year 4 (Preventive Medicine specialty)**

**Semester 1**

**VPM 841:** Public Health, Hospital and Practice Administration

**VPM 843:** Emergency Preparedness

**VPM 849A:** Preventive Medicine Clinics IV A

**Semester 2**

**VPM 842:** Vaccinology

**VPM 844:** Risk Mitigation Strategy

**VPM 849B:** Preventive Medicine Clinics IV B

**Year 5 (Preventive Medicine specialty)**

**Semester 1**

**VPM 851:** Seminar/Problem discussions

**VPM 859A:** Preventive Medicine Clinics V A

**Semester 2**

**VPH 852:** Project

**VPM 859B:** Preventive Medicine Clinics V B

**2.7 PROGRAMME STRUCTURE**

The activities in each option as well as in each year of study detailing the Credit Unit allocation is presented in the Course outline (Table 2.1).

**Table 2.1 PUBLIC HEALTH AND PREVENTIVE MEDICINE (Year 1 & 2)**

Year of Study	Semester	Course Code	Course Title and Description	No of CU
<b>1</b>	<b>Semester 1</b>	<b>VPH 811</b>	<b>Meat Hygiene, By-product and Utilization</b> A review of the anatomy of various organs, bones and important lymph nodes. Ante-mortem and post-mortem inspection. Meat and national economy. Meat grades and quality, meat processing and preservation techniques. Deterioration and contamination of meat. Visits to modern abattoir/meat processing factories. Hides and skin, blood, horns, hooves, feathers, their uses in non-food and food preparations, uses and grading of hides and skins. Utilization of abattoir by-products. Laws and regulations on international trade in animal by-products. Visit to by-products industries	3
		<b>VPH 813</b>	<b>Epidemiology</b> Definitions, scope of epidemiology. Multiple causation of disease. Spectrum of diseases. Epidemiological methods/studies, cohort, case control, cross sectional studies. Specific rates (incidence, prevalence, morbidity and mortality. Patterns diseases (endemic, epidemic and sporadic). Participatory epidemiology (concepts, tools and practical application of PE). Screening of populations for diseases, herd immunity, structure of animal populations.	2
		<b>VPM 811</b>	<b>Computer Applications in Veterinary Practice</b> Soft-wares in veterinary practice, management of veterinary clinics, herd health management soft-wares, on-line resources, veterinary networks,	2
		<b>VPM 813</b>	<b>Economics of Disease Control and Veterinary Projects</b> Basic principles of economics including the pricing theory. Economy assessment of losses from a disease outbreak, criteria for assessing production losses, depreciation, time value of money. Project proposal, planning techniques, evaluation and monitoring. Herd modelling and projections. Decision analysis. Preparation of feasibility studies.	3
		<b>VPH 819A</b>	<b>Public health Clinics 1A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services,	3

			candidate's participation and a report of cases and such other clinical activities shall be assessed.	
<b>Semester 2</b>	<b>VPH 812</b>	<b>Abattoir design and Management</b>	Types of abattoirs, management of abattoirs and slaughter slabs. Effluent management. Factors to consider in location of abattoirs. Design of abattoirs and slaughter slabs. Personnel management, hygiene and sanitation of abattoirs, waste disposal, personal hygiene. Record keeping and processing.	2
	<b>VPM 812</b>	<b>Veterinary ethics and Jurisprudence</b>	Basic definitions in ethics and jurisprudence, classification of ethics, veterinary ethics, cruelty to animals, information consent, ethics in veterinary surgery and medical practice, ethics in research, a review of the provision of veterinary laws on veterinary practice, animal movements, control of veterinary drugs, public health, meat hygiene, fish and wildlife management, cruelty of animals. Forensic veterinary medicine. Animal welfare.	3
	<b>VPM 814</b>	<b>Immunology</b>	Classification and consequences of immune responses. Immunological diseases, differentiation of animal tissues in ontogeny and phylogeny animal serum banks, serological epidemiology.	2
	<b>VPH 814</b>	<b>Introduction to Biorisk Management</b>	Basic concepts: Laboratory Biosafety, Laboratory Biosecurity, Biorisk management system, hazard, risk. Biosafety and biosecurity; Key components of Biorisk Management; (AMP: assessment, mitigation and performance); Biorisk Management system; CWA 15793; Biosafety risk assessment; Biosecurity risk assessment	2
	<b>VPH 819B</b>	<b>Public health Clinics 1B</b>	Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
		<b>Total</b>		<b>25</b>
	<b>VPH 821</b>	<b>Veterinary Environmental Health</b>		3

<b>2</b>	<b>Semester 1</b>		Ecological concepts (definitions, ecological zones/ecosystems of Nigeria, etc), hazards of mass feeding, watering etc, air, soil and water pollution, waste disposal. Farm and abattoir waste including radio-active contaminants and management. Environmental sanitation and infection. Analysis of farm and abattoir wastes, Techniques of waste management. Disposal of radioactive contaminants. Environmental sanitation and disinfection, vector control and improvement of premises.	
		<b>VPH 823</b>	<b>Food Safety I</b> Food preservation methods, food poisoning and food-borne diseases. Risk analysis and principles of HACCP in food safety (including honey), predictive modelling in food safety. Traceability. Codex alimentarius,.	2
		<b>VPM 821</b>	<b>Veterinary Entrepreneurship</b> Definition of business, business ideas, veterinary business types, types of veterinary practices (mixed, poultry, small animal and production), advertisement, business management, Business budget. Risk management in veterinary business, limitations to private practice. Concept of entrepreneurship, developing a business plan	3
		<b>VPH 829A</b>	<b>Public health Clinics II A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
	<b>Semester 2</b>	<b>VPH 822</b>	<b>Biostatistics</b> Data types, representative sampling, distribution and frequencies. Measures of central tendency and dispersion. Correlation and regression analysis. Hypotheses testing. Types I and II errors. Appropriate use of soft-wares. Uses of graphs including histograms, pie charts, pictograms, line graphs and scatter diagrams. T-tests, Chi-squared, ANOVA, non-parametric tests.	3
		<b>VPH 824</b>	<b>Zoonoses</b> Definitions, Epizootiology of zoonoses, classification of zoonoses (bacterial, viral, fungal, rickettsia, parasitic, pet-borne diseases, bites and stings from snakes, other animals. Introduction to <i>One Health</i> .	3
		<b>VPM 822</b>	<b>Veterinary Extension Services</b> Definitions, veterinary and extension inputs, extension communication, target of veterinary extension, extension agents, subject matter specialists, resource persons, extension delivery models, extension liaison services, extension	2

			institutions, adaptive and adoptive research, research extension linkage, extension publications.	
		<b>VPH 829B</b>	<b>Public health Clinics II B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>23</b>

**Table 2.2 PUBLIC HEALTH SPECIALTY/OPTION**

<b>Year of Study</b>	<b>Semester</b>	<b>Course Code</b>	<b>Course Title and Description</b>	<b>No of CU</b>
<b>3</b>	<b>Semester 1</b>	<b>VPM 831</b>	<b>Research Methods</b> Concept of research, research types, design and proposal. Sampling and data collection, data analysis, Technical report writing. Ethics in research. Observational and experimental research and clinical trials.	2
		<b>VPH 831</b>	<b>Biorisk Characterization and Evaluation; Mitigation Strategies And Performance</b> Assessment (risk identification, hazard/threat identification, likelihood evaluation, consequences evaluation), mitigation (elimination or substitution; engineering control; administrative control; practices and procedures; personal protective equipment) and performance (Control, assurance and improvement); Concept of performance, Basics of performance, performance in biorisk management system, steps to evaluating biorisk management performance, performance as tool for improvement	2
		<b>VPH 833</b>	<b>Veterinary Environmental Health</b> Ecological concepts (definitions, ecological zones/ecosystems of Nigeria, etc), hazards of mass feeding, watering etc, air, soil and water pollution, waste disposal. Farm and abattoir waste including radioactive contaminants and management. Environmental sanitation and infection. Analysis of farm and abattoir wastes, Techniques of waste management. Disposal of radioactive contaminants. Environmental sanitation and disinfection, vector control and improvement of premises.	3
		<b>VPH 839A</b>	<b>Public health Clinics III A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary	3



			extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	
	<b>Semester 2</b>	<b>VPH 832</b>	<b>Emerging Zoonoses and transboundary diseases</b> Emerging zoonoses, ecological and predisposing factors, and extant examples such as MERS-CoV, Schmallenberg virus, White Nose Syndrome, SARS, Ebola, Mad cow disease, avian influenza. Transboundary diseases, definition and examples	2
		<b>VPM 832</b>	<b>Veterinary Jurisprudence II</b> International legislations and conventions relevant to veterinary practice. Examples include codex alimentarius, CITES, OIE, FAO, IBAR and WHO, Bonn convention on migratory species, NOSDRA- Oil spillage, etc.	2
		<b>VPM 834</b>	<b>Neglected Tropical Diseases</b> Definition, challenges and solutions. Towards Rabies elimination: major research challenges and opportunities against rabies. One-health and Eco-health approach to rabies. One health fight against leishmaniasis. Zoonotic TB in the WHO End TB strategy. Snake bite: a neglected global health challenge	2
		<b>VPH 839B</b>	<b>Public health Clinics III B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>19</b>
	<b>Semester 1</b>	<b>VPM 841</b>	<b>Public Health, Hospital and Practice Administration</b> Administration Of Public Health Institutions, Setting Up Of A Veterinary Hospital/Laboratories, Practice Premises, Hospital Management, Pay Roll, Supply And Storage Of Drugs, Vaccine And Medical Devices. Prescription Writing. Record Keeping. Charging For Clinical Services, Tax, And Insurance. Roles Of Manager, Clinicians,	3

<b>4</b>			Nurses, Receptionist, Etc. Personnel management, discipline and motivation. Employment law. practice evaluation	
		<b>VPM 842</b>	<b>Emergency Preparedness</b> EMPRES, Early warning of diseases, early reaction to disease outbreaks, risk analysis, Animal disease emergency preparedness plans and actions. Contingency plans against trans-boundary animal diseases. Stamping out of diseases.	2
		<b>VPH 849A</b>	<b>Public health Clinics IV A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
	<b>Semester 2</b>	<b>VPH 841</b>	<b>Global health at the Human and Animal Ecosystem Interface</b> Definitions and concept of one health, Planetary health, Ecosystem and Global health. The importance of One Health to Global Health. The Tripartite collaboration: FAO/OIE (WOAH)/WHO. Importance of one health approach in the investigating Emerging zoonotic diseases. The global burden of antimicrobial resistance(AMR). AMR in food borne infection, importance of One-health approach	2
		<b>VPH 842</b>	<b>Animal Health Information system</b> Animal disease reporting system, TAD info. GPS instruments, Arch view GIS application software, Field PDA units and their uses in disease mapping. Field studies. .	2
		<b>VPH 849B</b>	<b>Public health Clinics IV B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>15</b>

<b>5</b>	<b>Semester 1</b>	<b>VPH 851</b>	<b>Seminar/Problem discussions</b> Residents are to present seminars on topics relevant to their specialties and /or discuss a problem of cases encountered, it should be written and submitted in form of term paper	2
		<b>VPH 859A</b>	<b>Public health Clinics V A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
	<b>Semester 2</b>	<b>VPH 852</b>	<b>Project</b> A compendium of at least 6 case studies published in academic journals	6
		<b>VPH 859B</b>	<b>Public health Clinics V B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>14</b>

**Table 2.3 FOOD SAFETY SPECIALTY/OPTION**

Year of Study	Semester	Course Code	Course Title and Description	No of CU
<b>3</b>	<b>Semester 1</b>	<b>VPM 831</b>	<b>Research Methods</b> Concept of research, research types, design and proposal. Sampling and data collection, data analysis, Technical report writing. Ethics in research. Observational and experimental research and clinical trials.	2
		<b>. VPH 831</b>	<b>Biorisk Characterization and Evaluation; Mitigation Strategies And Performance</b> Assessment (risk identification, hazard/threat identification, likelihood evaluation, consequences evaluation), mitigation (elimination or substitution; engineering control; administrative control; practices and procedures; personal protective equipment) and performance (Control, assurance and improvement); Concept of performance, Basics of performance, performance in biorisk management system, steps to evaluating biorisk management performance, performance as tool for improvement	2
		<b>. VFS 831</b>	<b>Fish Hygiene, Control and Prevention of fish diseases</b> Fish and shell fish harvesting, preservation and spoilage, fish inspection, fish-borne diseases and intoxication. Practical assessment of fish spoilage by physical and chemical tests. Practical study visits. Fresh, marine and brackish aquatic ecology, fish husbandry and management, Bacterial, viral, fungi and parasitic diseases, their treatments and prevention, uses of vaccines in aquatic veterinary practice	3
		<b>VFS 839A</b>	<b>Food Safety Clinics III A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
	<b>Semester 2</b>	<b>VPH 832</b>	<b>Emerging Zoonoses</b>	2

			Emerging zoonoses, ecological and predisposing factors, and extant examples such as MERS-CoV, Schmallenberg virus, White Nose Syndrome, SARS, Ebola, Mad cow disease, avian influenza.	
		<b>VPM 832</b>	<b>Veterinary Jurisprudence II</b> International legislations and conventions relevant to veterinary practice. Examples include codex alimentarius, CITES, OIE, FAO, IBAR and WHO, Bonn convention on migratory species, NOSDRA- Oil spillage, etc.	2
		<b>VFS 832</b>	<b>Food Safety II</b> Drugs, pesticides, carcinogens in processed meat products, causes of drug residues in animal products, permissible level of residues, techniques for detecting drug residue levels, effects and prevention of drug residues in animal products. Concept and application of traceability in food safety. Food residue avoidance data bank	3
		<b>VFS 839B</b>	<b>Food Safety Clinics III B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>20</b>
	<b>Semester 1</b>	<b>VPM 841</b>	<b>Public Health, Hospital and Practice Administration</b> Administration Of Public Health Institutions, Setting Up of A Veterinary Hospital/Laboratories, Practice Premises, Hospital Management, Pay Roll, Supply And Storage Of Drugs, Vaccine And Medical Devices. Prescription Writing. Record Keeping. Charging For Clinical Services, Tax, And Insurance. Roles Of Manager, Clinicians, Nurses, Receptionist, Etc. Personnel management, discipline and motivation. Employment law. practice evaluation.	3
		<b>VPM 843</b>	<b>Emergency Preparedness</b> EMPRES, Early warning of diseases, early reaction to disease outbreaks, risk analysis, Animal disease emergency preparedness	2

<b>4</b>			plans and actions. Contingency plans against trans-boundary animal diseases. Stamping out of diseases.	
		<b>VFS 849A</b>	<b>Food Safety Clinics</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
	<b>Semester 2</b>	<b>VFS 841</b>	<b>Milk and dairy products</b> Dairy animals. Definition of milk, composition of milk, factors affecting milk yield, hygiene and sanitation in milking operations. Designing and managing milking parlour, Milk collection, processing, milk tests. Milk preservation including pasteurization. Processing of other dairy products (butter, cheese, yoghurt etc). Milk-borne diseases.	2
		<b>VFS 842</b>	<b>Meat Microbiology</b> Microbial meat spoilage, chemical, microbiological and physical changes, endogenous and exogenous infections, factors affecting the growth of spoilage micro-organisms, prevention of meat spoilage.	2
		<b>VFS 849B</b>	<b>Food Safety Clinics IV B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed	3
			<b>Total</b>	<b>15</b>
<b>5</b>	<b>Semester 1</b>	<b>VFS 851</b>	<b>Seminar/Problem discussions</b> Residents are to present seminars on topics relevant to their specialties and /or discuss a problem on cases encountered, it should be written and submitted in form of term paper	2
		<b>VFS 859A</b>	<b>Food Safety Clinics V A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension	3

			services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	
	<b>Semester 2</b>	<b>VFS 852</b>	<b>Project</b> A compendium of at least 6 case studies published in academic journals	6
		<b>VFS 859B</b>	<b>Food Safety Clinics V B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>14</b>

**Table 2.4: EPIDEMIOLOGY SPECIALTY/OPTION**

Year of Study	Semester	Course Code	Course Title and Description	No of CU
<b>3</b>	<b>Semester 1</b>	<b>VPM 831</b>	<b>Research Methods</b> Concept of research, research types, design and proposal. Sampling and data collection, data analysis, Technical report writing. Ethics in research. Observational and experimental research and clinical trials.	2
		<b>VPH 831</b>	<b>Biorisk Characterization and Evaluation; Mitigation Strategies and Performance</b> Assessment (risk identification, hazard/threat identification, likelihood evaluation, consequences evaluation), mitigation (elimination or substitution; engineering control; administrative control; practices and procedures; personal protective equipment) and performance (Control, assurance and improvement); Concept of performance, Basics of performance, performance in biorisk management system, steps to evaluating biorisk management performance, performance as tool for improvement	2
		<b>VE 811</b>	<b>Advanced Epidemiology</b> Multifactorial aetiology and theory of causation, Risk and risk analysis, Ecosystem and Disease (Ecology and Disease), measurement of risk(risk factor in disease), Patterns of disease occurrence in animal population Assessing the validity and reliability of diagnostic and screening test	3
		<b>VE 839A</b>	<b>Epidemiology Clinics III A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
	<b>Semester 2</b>	<b>VPH 832</b>	<b>Emerging Zoonoses and transboundary diseases</b>	2



			Emerging zoonoses, ecological and predisposing factors, and extant examples such as MERS-CoV, Schmallenberg virus, White Nose Syndrome, SARS, Ebola, Mad cow disease, avian influenza. Transboundary diseases, definition and examples	
		<b>VPM 832</b>	<b>Veterinary Jurisprudence II</b> International legislations and conventions relevant to veterinary practice. Examples include codex alimentarius, CITES, OIE, FAO, IBAR and WHO, Bonn convention on migratory species, NOSDRA- Oil spillage, etc.	2
		<b>VE 832</b>	<b>Disease Surveillance</b> Disease nomenclature and classification, trans-boundary animal diseases, animal disease reporting, role of international agencies in disease reporting and surveillance. Disease control and eradication measures. Surveillance systems for major diseases. Participatory disease surveillance.	2
		<b>VE 839B</b>	<b>Epidemiology Clinics III B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>19</b>
	<b>Semester 1</b>	<b>VPM 841</b>	<b>Public Health, Hospital and Practice Administration</b> Administration Of Public Health Institutions, Setting Up Of A Veterinary Hospital/Laboratories, Practice Premises, Hospital Management, Pay Roll, Supply And Storage Of Drugs, Vaccine And Medical Devices. Prescription Writing. Record Keeping. Charging For Clinical Services, Tax, And Insurance. Roles Of Manager, Clinicians, Nurses, Receptionist, Etc. Personnel management, discipline and motivation. Employment law. practice evaluation	3
		<b>VPM 842</b>	<b>Emergency Preparedness</b> EMPRES, Early warning of diseases, early reaction to disease outbreaks, risk analysis, Animal disease emergency preparedness plans and actions.	2

<b>4</b>			Contingency plans against trans-boundary animal diseases. Stamping out of diseases.	
		<b>VE 849A</b>	<b>Epidemiology Clinics IV A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
	<b>Semester 2</b>	<b>VE 841</b>	<b>Molecular Epidemiology</b> History, scope, applications in animal and zoonotic disease surveillance and control. - Veterinary infection biology and pathogenesis: Molecular basis of infectious diseases, host-pathogen interactions. - Biomarker and pathogen identification – Nucleic acid/antigen detection techniques like PCR, sequencing, microarrays. - Outbreak investigation methods – Case definitions, sample collection. Genotyping, molecular tracing tools. - Major zoonotic and production disease systems – Case studies of avian influenza, rabies, tuberculosis, brucellosis etc - Bioinformatics for veterinary epidemiology – Database resources, sequence analysis, phylogenetics, population genetics. - Comparative genomics – Genome content, structure, host adaptations of veterinary pathogens. - Molecular surveillance and antimicrobial resistance – Molecular subtyping, AMR gene detection and characterization. - One Health approach – Molecular aspects of linking animal, human and environmental aspects of disease emergence and spread	3
		<b>VPH 842</b>	<b>Animal Health Information system</b> Animal disease reporting system, TAD info. GPS instruments, Arch view GIS application software, Field PDA units and their uses in disease mapping. Field studies.	2

		<b>VE 849B</b>	<b>Epidemiology Clinics IV B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>16</b>
<b>5</b>	<b>Semester 1</b>	<b>VE 851</b>	<b>Seminar/Problem discussions</b> Residents are to present seminars on topics relevant to their specialties and /or discuss a problem on cases encountered, it should be written and submitted in form of term paper	2
		<b>VE 859A</b>	<b>Epidemiology Clinics V A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
	<b>Semester 2</b>	<b>VE 852</b>	<b>Project</b> A compendium of at least 6 case studies published in academic journals	6
		<b>VE 859B</b>	<b>Epidemiology Clinics V B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
				<b>Total</b>

## 2.5: PREVENTIVE MEDICINE SPECIALTY/OPTION

Year of Study	Semester	Course Code	Course Title and Description	No of CU
<b>3</b>	<b>Semester 1</b>	<b>VPM 831</b>	<b>Research Methods</b> Concept of research, research types, design and proposal. Sampling and data collection, data analysis, Technical report writing. Ethics in research. Observational and experimental research and clinical trials.	2
		<b>VPH 831</b>	<b>Biorisk Characterization and Evaluation; Mitigation Strategies And Performance</b> Assessment (risk identification, hazard/threat identification, likelihood evaluation, consequences evaluation), mitigation (elimination or substitution; engineering control; administrative control; practices and procedures; personal protective equipment) and performance (Control, assurance and improvement); Concept of performance, Basics of performance, performance in biorisk management system, steps to evaluating biorisk management performance, performance as tool for improvement	2
		<b>VPM 833</b>	<b>Herd Health Management</b> Chemoprophylactic immunoprophylactic procedures, vaccine and vaccination, hatchery management and hygiene. Screening a population for disease. Herd immunity. Biosecurity measures.	2
		<b>VPH 839A</b>	<b>Preventive Medicine Clinics III A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
	<b>Semester 2</b>	<b>VPH 832</b>	<b>Emerging Zoonoses and transboundary diseases</b> Emerging zoonoses, ecological and predisposing factors, and extant examples such as MERS-CoV, Schmallenberg virus, White Nose Syndrome, SARS, Ebola, Mad cow disease, avian influenza. Transboundary diseases, definition and examples	2

		<b>VPM 832</b>	<b>Veterinary Jurisprudence II</b> International legislations and conventions relevant to veterinary practice. Examples include codex alimentarius, CITES, OIE, FAO, IBAR and WHO, Bonn convention on migratory species, NOSDRA- Oil spillage, etc.	2
		<b>VPM 834</b>	<b>Veterinary quarantine services</b> Definitions, quarantine services during outbreaks of disease outbreaks, control posts, import and export permits and procedures, location and design of quarantine stations, record keeping in quarantine services, CITES, biosecurity measures	3
		<b>VPM 839B</b>	<b>Preventive Medicine Clinics III B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>19</b>
<b>4</b>	<b>Semester 1</b>	<b>VPM 841</b>	<b>Public Health, Hospital and Practice Administration</b> Administration Of Public Health Institutions, Setting Up Of A Veterinary Hospital/Laboratories, Practice Premises, Hospital Management, Pay Roll, Supply And Storage Of Drugs, Vaccine And Medical Devices. Prescription Writing. Record Keeping. Charging For Clinical Services, Tax, And Insurance. Roles Of Manager, Clinicians, Nurses, Receptionist, Etc. Personnel management, discipline and motivation. Employment law. practice evaluation	3
		<b>VPM 842</b>	<b>Emergency Preparedness</b> EMPRES, Early warning of diseases, early reaction to disease outbreaks, risk analysis, Animal disease emergency preparedness plans and actions. Contingency plans against trans-boundary animal diseases. Stamping out of diseases.	2
		<b>VPM 849A</b>	<b>Preventive Medicine Clinics IV A</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3

	<b>Semester 2</b>	<b>VPM 842</b>	<b>Vaccinology</b> Overview of immune response to microbial infections (viruses and bacteria), viral pathogenesis and methods of immune evasion, passive immunotherapy, adjuvant and immune activation, pathogenesis and evasion mechanisms of specific viruses, types of vaccines, vaccine safety	3
		<b>VPM 844</b>	<b>Risk Mitigation Strategy</b> Competence to manage biological risks, laboratory accidents, theft, biotechnology field applications, one health, contexts for biorisk management, Connecting BRM to the big picture [Biological weapon convention (BWC), WHO. OIE, United Nations Security Council Resolution (UNSCR)]; Laboratory level operational controls. Biocontainment facility features, Engineering controls and laboratory equipment; laboratory work practices; Personal protective equipment; Decontamination; Biological waste disposal; Laboratory biosecurity; Field biosecurity; shipping infectious substances and Biological Specimens. Biocontainment facility features, Engineering controls and laboratory equipment; laboratory work practices; Personal protective equipment; Decontamination; Biological waste disposal; Laboratory biosecurity; Field biosecurity; shipping infectious substances and Biological Specimens.	2
		<b>VPM 849B</b>	<b>Preventive Medicine Clinics IV B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>16</b>
	<b>Semester 1</b>	<b>VPH 851</b>	<b>Seminar/Problem discussions</b> Residents are to present seminars on topics relevant to their specialties and /or discuss a problem on cases encountered, it should be written and submitted in form of term paper	2
		<b>VPH 859A</b>	<b>Preventive Medicine Clinics V A</b>	3

<b>5</b>			Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	
	<b>Semester 2</b>	<b>VPH 852</b>	<b>Project</b> A compendium of at least 6 case studies published in academic journals	6
		<b>VPM 859B</b>	<b>Preventive Medicine Clinics V B</b> Residents shall participate in ambulatory clinical services of the hospital, meat inspection, vaccination campaign and veterinary extension services, candidate's participation and a report of cases and such other clinical activities shall be assessed.	3
			<b>Total</b>	<b>14</b>