

DEPARTMENT OF VETERINARY SURGERY AND THERIOGENOLOGY

OPTION: Master in Veterinary Surgery (MVS) Degree

PHILOSOPHY

There are a lot of problems in farm and pet animals that are amenable only to surgery preventive curative and prophylaxis. Specialization in surgery is the only way to guarantee repetitive success in the management of such cases and the individual is also able to design and execute surgical projects with confidence. Hence a program designed at master's level will be able to equip a Veterinarian with the necessary techniques in surgery for the therapeutic, preventive, prophylactic and cosmetic outlook, private practitioners in the field with the above qualification will also be better prepared for more effective and efficient veterinary surgery services to both pet and farm animals.

OBJECTIVES

The masters' program in Veterinary Surgery will develop the professional post graduate student in the art of preventive, curative and cosmetic surgical techniques in companion and farm animals: the students are also trained to work with their human counterparts to design and solve surgical services to both pet and farm animals.

SCOPE

Through available expertise and facilities in the Department, a post graduate training in surgery is offered to qualified professionals leading to award of Master in Veterinary Surgery (MVS)

ADMISSION REQUIREMENTS:

Applicants must have Doctor of Veterinary Medicine (DVM) degree, or its equivalent registrable by the Veterinary Council of Nigeria (VCN).

MODE OF STUDY: The program is designed for full time students.

DURATION OF PROGRAMME:

The program requires a minimum of 12 calendar months and a maximum of 24 calendar months for full time students.

CAREER OPPORTUNITIES

Holders of MVS from this Department will be able to work in surgical research laboratories as designers of experiments; in surgical consumable industries as quality control officers; in referral surgical private practices as consultants, in military and para-military Veterinary Hospitals as consultants and in tertiary institutes as lecturers. They will also be able to advise governmental and non-governmental organizations in areas of veterinary surgical interests.

AREAS OF SPECIALIZATION

Veterinary Orthopaedic Surgery;
Veterinary Soft Tissue Small Animal Surgery
Veterinary Soft Tissue Large Animal Surgery

SCORING AND GRADING SYSTEM:

The courses will be examined and scored on percentile bases, but the grading will be on A,B,C & F basis, with

A	70% and above	5 points
B	60-69%	4 points

C	50-59%	3 points
F	Less than 50%	0 point

A weighted grade of CGPA of 3.5 (60% and above) qualifies the candidate to register straight for a Ph.D. program.

REQUIREMENT FOR GRADUATION

The academic program requires the completion of a minimum of 24 units of 800 level courses and 6 units of dissertation. Two seminars will be presented one of which will be graded.

PROGRAMME STRUCTURE

LIST OF COURSES FOR MASTERS DEGREE

FIRST SEMESTER

CODE	COURSE TITLE	CREDIT UNIT
VSG 810	Surgical Anatomy	1 (0 – 1)
VSG 811	Veterinary Anesthesiology	2 (1 – 1)
VSG 812	Large Animal Surgery	2 (1 – 1)
VSG 813	Small animal Surgery	2 (1 – 1)
VSG 814	Large Animal Lameness	2 (1 – 1)
VSG 815	Small Animal Orthopedics	2 (1 – 1)
VSG 816	Veterinary Radiology	2 (0 – 1)
VSG 817	Surgical Clinics	1 (0 – 1)
VSG 818	Problem in Surgery	1 (0 – 1)
VSG 819	Surgical Diagnostic Techniques	1 (0 – 1)
TOTAL		16 Credits

(B) SECOND SEMESTER

CODE	COURSE TITLE	CREDIT UNIT
VSG 821	Plastic and Reconstructive Surgery	2 (1-1)
VSG 822	Clinical Gastroentology	2 (1 – 1)
VSG 823	Ophthalmic Surgery (small animal)	2 (1 – 1)
VSG 824	Large Animal Anesthesia	2 (1 – 1)
VSG 825	Equate Abdominal Surgery	2 (1 – 1)
VSG 826	Large Animal Diagnostic Radiology	2 (1 – 1)
VSG 827	Surgical Clinics	1 (0 – 1)
VSG 828	Surgical Diseases of Mammary Gland	2 (1 – 1)
VSG 899	Research in Surgery	6 (0 – 6)
TOTAL		15 Credits

NOTE:

All courses for any particular specialty are core. The supervisors will suggest relevant courses for the student (depending on area of specialization).

OPTION: Master of Science (M. Sc.) in Theriogenology Degree

PHILOSOPHY: The national goal of ensuring food security and self-sufficiency in livestock production depends entirely on reproductive efficiency that guarantees optimal livestock productivity. This is in turn influenced by several factors including nutrition, genetics, reproductive and other diseases and environment. The knowledge of interplay of these factors on reproduction is very critical to the effective management of reproduction of animals for enhanced productivity. Highly specialized knowledge attainable of the postgraduate level of training can adequately prepare the veterinarian with the requisite understanding of these interactions and their effects on reproduction, and the pathophysiology of reproductive diseases for their effective handling and management for overall enhanced livestock productivity. Consequently, postgraduate training that will provide for enhanced training and exposure that will lead to the acquisition of higher skills and knowledge for more effective clinical practice in the areas of theriogenology including Animal Production, Veterinary Obstetrics, Veterinary Gynaecology, Veterinary Andrology, Veterinary Physiology and Endocrinology, Veterinary Reproductive Biotechnologies and Reproductive Herd Health is highly desirable. This will guarantee the availability of high manpower requirements of the nation essential for the attainment of adequate food production for sustainable food security, as well as efficient reproduction in other animal species. The Master of Science degree program is intended to provide this initial specialized training in all the aspects of animal reproduction.

SCOPE

This training is offered to qualified veterinarians in clinical practice, academic and research institutions leading to award of Master of Science in Theriogenology (Small Animal or Large Animal/Food Animal).

OBJECTIVES

The masters' program in Theriogenology aims at providing postgraduate students, that is, veterinarians in academics, clinical practice, research institutes and related areas the opportunity for initial academic specialization in Theriogenology in the various areas of animal reproduction for efficient and enhanced livestock productivity. The training will also prepare the students for collaboration with the human counterparts to design and solve human fertility problems through experimentation with animal models. At the end of the training, such candidates are expected to be capable of carrying out clinical, on farm, extension and research activities in this area of specialization.

ADMISSION REQUIREMENTS

The candidates must have met the general admission requirements of the postgraduate school of the College of Veterinary Medicine. All prospective candidates must be holders of the Doctor of Veterinary Medicine (DVM) degree or equivalent and registrable by the Veterinary Council of Nigeria (VCN). Such candidates must have either earned an average score of B in Theriogenology courses in these transcripts at the undergraduate level or a minimum cumulative grade point average (CGPA) of 3.5 in his academic transcript.

MODE OF STUDY

The program will be run on both part time and full time basis. The Master of Science program in Theriogenology will be a 2 year program consisting of taught courses (course work) and a research project (Thesis). The taught courses will be made up of a minimum of 25 credit units mostly courses in Theriogenology and others in subjects that will improve the understanding of the specialty area including medicine, surgery, diagnostic imaging, pathology, economics and epidemiology of subjects relevant to the chosen research topic as may be determined by the supervisory committee of the student. The thesis will be made up of internal defense presentation (one seminar) and external defense at the completion of the study. All candidates must be fully involved in Theriogenology clinics during their training program.

DURATION OF STUDY

The program will be run in a minimum of 4 semesters and a maximum of 6 semesters for full time students, and a minimum of 6 semesters and a maximum of 8 semesters for part-time students.

CAREER OPPORTUNITIES

The holders of the Master of Science degree in Theriogenology (Small or Large/Food Animal) will have enhanced employment opportunities in government and private veterinary clinics practice, private farms (companion and farm animals), in research institutes (both veterinary and multidisciplinary), military establishments with animals such as dogs, horses etc. They will also have opportunities in the tertiary institutions as lecturers and consultancy opportunities to both government and non – governmental organizations with interest in livestock development and productivity. The graduates may also be employable by banks as consultants in regard to funding by these banks for livestock production schemes.

AREAS OF SPECIALIZATION

- Master of Science in Theriogenology (Small Animal)
- Master of Science in Theriogenology (Large/Food Animal)

SCORING AND GRADING

The taught courses and seminar will be scored on percentile bases but the grading will be based on letter grades A – F

- 70% and above
- 60-69%
- 50-59%

F - Less than 50%

For the computation of academic standing of the students, the earned letter grades will be given numerical values as follows; A=5; B=4; C=3; F=0

REQUIREMENTS FOR GRADUATION

The program requires the candidate to complete a minimum of 22 credit units of 800 level courses which must all be earned and 6 units of research work to be presented as a seminar.

LIST OF POSTGRADUATE COURSES

FIRST SEMESTER

COURSE CODE	COURSE TITLE
STH 811	Advanced Veterinary Obstetrics
STH 812	Advanced Veterinary Gynaecology
STH 813	Advanced Veterinary Andrology
STH 814	Infertility and Sterility
STH 815	Comparative Mammalian Reproduction
STH 816	Theriogenology Clinics
TOTAL	

(B) SECOND SEMESTER

COURSE CODE	COURSE TITLE
STH 821	Advanced Artificial Insemination
STH 822	Advanced Veterinary Reproductive Biotechnologies
STH 823	Advanced Reproductive Herd Health
STH 824	Advanced Reproductive Physiology & Endocrinology
STH 825	Theriogenology Clinics
STH 899	Research in Theriogenology
TOTAL	

Note: Courses in medicine, surgery, pathology, radiology, statistics, epidemiology etc as are relevant to the chosen research topic may be required to be taken by the student as decided by the supervisory committee of the student.

COURSE DESCRIPTIONS

FACILITIES

The Theriogenology Unit has two laboratories with the minimum basic equipment to conduct research in various aspects of animal reproduction. Facilities in other laboratories in the College of Veterinary Medicine, Veterinary Teaching Hospital and other Colleges will complement research work in this option.

OPTION: Doctor of Philosophy (PhD) in Theriogenology.

PHILOSOPHY

The national goal of self-sufficiency in food production and food security depends on the success of livestock production enterprise. This in turn depends entirely on efficient reproduction that guarantees optimal livestock productivity. Several factors however affect reproductive efficiency including reproductive performance, nutrition, genetics, diseases and environment. The knowledge of interplay of these factors as they affect reproduction is very critical to the effective management of reproduction of animals for enhanced productivity. Only specialized knowledge attainable at the postgraduate level can adequately prepare the veterinarian with the requisite training to effectively understand these interactions and to exploit the knowledge for the benefit of increasing production. In addition, there are several reproductive diseases and disorders that directly affect the productivity of livestock particularly reproductive performance. The effective handling and management of these disorders depends on a deep understanding of the pathophysiology of these disorders, and this in turn depends on a higher exposure of the veterinarian to a depth greater than is feasible to attain during the undergraduate training. Consequently, postgraduate training that will provide for enhanced training and exposure that will lead to the acquisition of higher skills and knowledge for most effective clinical practice in the areas of Theriogenology including Animal

Reproduction, Veterinary Obstetrics, Veterinary Gynaecology, Veterinary Andrology, Veterinary Physiology and Endocrinology, Veterinary Reproductive Biotechnologies and Reproductive Herd Health is highly desirable. This will guarantee the availability of high manpower requirements of the nation essential for the attainment of adequate food production for sustainable food security, as well as efficient reproduction in other animal species. The Doctor of Philosophy degree program is intended to provide the highest specialized training in all the aspects of animal reproduction.

SCOPE

This training is offered to qualified veterinarians in clinical practice, academic and research institutions with initial postgraduate qualification (Master of Science or equivalent) leading to award of Doctor of Philosophy in Theriogenology (Small Animal or Large/Food Animal)

OBJECTIVES

The Doctor of Philosophy program in Theriogenology aims at providing postgraduate students, that is, veterinarians in academics, clinical practice, research institutes and relate areas with the initial postgraduate qualification the opportunity for acquisition of the highest specialized training and specialization in Theriogenology for efficient and enhanced livestock productivity. The training will also prepare the students for collaboration with the human counterparts to design and solve human fertility problems through experimentation with animal models. At the end of the training, such candidates are expected to be capable of carrying out clinical, on – farm, extension and research activities at the highest level in this area of specialization.

ADMISSION REQUIREMENTS

The candidates must have met the general admission requirements of the postgraduate school of the College of Veterinary Medicine. All prospective candidates must be holders of the Doctor of Veterinary Medicine (DVM) degree or equivalent and registerable by the Veterinary Council on Nigeria (VCN). The candidates must have had a postgraduate qualification in which he or she must have earned a minimum average score of B or weighted cumulative grade point average (CGPA) of 3.50.

MODE OF STUDY

The program will be run on both part – time and full time basis. The Doctor of Philosophy program in Theriogenology will be a minimum of 3 – year program consisting of taught courses (course work) and a research project (Dissertation). The taught courses will be made up of a minimum of 45 credit units, mostly course in Theriogenology and others in subjects that will improve the understanding of the specially area including medicine, surgery, diagnostic imaging, pathology economics and epidemiology or subjects relevant to the chosen research topic as may be determined by the supervisory committee of the student. The dissertation will be made up of internal defense presentation (two or more seminars) and external defense at the completion of the study. All candidates must be fully involved in Theriogenology clinics during the course of the program.

DURATION OF STUDY

The program will be run in a minimum of 6 semesters and a maximum of 10 semesters for full time students, and a minimum of 8 semesters and a maximum of 12 semesters for part – time students.

CAREER OPPORTUNITIES

The holders of the Doctor of Philosophy degree in Theriogenology (Small or Large/Food animal) will have enhanced employment opportunities in government and private veterinary clinical practice, private farms (companion and farm animals) in research institutes (both veterinary and multidisciplinary), military establishments with animals such as dogs, horses etc. They will also have opportunities in the tertiary institutions as lecturers and consultancy opportunities to both government and non – governmental organizations with interest in livestock development and productivity. The graduates may also be employable by banks as consultants in regard to funding by these banks for livestock production schemes.

AREAS OF SPECIALIZATION:

- i. Doctor of Philosophy in Theriogenology (Small Animal)
- ii Doctor of Philosophy in Theriogenology (Large/Food Animal)

SCORING AND GRADING

The taught courses and seminars will be scored on percentile basis but the grading will be based on letter grades A – F.

- = 70% and above
- = 60 - 69%
- = 50 - 59%
- = 45 - 49%
- = 40 - 44%
- = Less than 40%

For the computation of academic standing of the students, the earned letter grades will be given numerical values as follows: A = 5; B = 4; C = 3; D = 2; E = 1; F = 0.

REQUIREMENTS FOR GRADUATION

The program requires the candidate to complete a minimum of 45 credit units of 900 level courses which must all be earned and 15 units of research work to be presented as seminars (minimum of two). The candidate must have scored a minimum CGPA of 4.00 in his course work. Any candidate who fails to score a minimum CGPA of 4.00 at the completion of his course work or taught courses will not be allowed to proceed with the research work leading to the award of the Doctor of Philosophy degree.

LIST OF POSTGRADUATE COURSES

FIRST SEMESTER

COURSE CODE	COURSE TITLE	CREDIT UNIT
STH 911	Advanced Veterinary Obstetrics	4 (3 – 1)
STH 912	Advanced Veterinary Gynaecology	4 (3 – 1)
STH 913	Advanced Veterinary Andrology	4 (3 – 1)
STH 914	Infertility and Sterility	3 (3 – 1)
STH 915	Comparative Mammalian Reproduction	4 (3 – 1)
STH 916	Theriogenology Clinics	2 (0 – 2)
TOTAL		21
SECOND SEMESTER		
STH 921	Advanced Artificial Insemination	3 (2 – 0)
STH 922	Advanced Veterinary Reproductive Biotechnologies	3 (2 – 1)
STH 923	Advanced Reproductive Herd Health	3 (2 – 1)
STH 924	Advanced Reproductive Physiology & Endocrinology	3 (2 – 1)
STH 925	Theriogenology Clinics	2 (0 – 2)
STH 999	Research in Theriogenology	15 (0 – 15)
TOTAL		14

Note: Courses in medicine, surgery, pathology, radiology, statistics, epidemiology, animal nutrition and production are also relevant to the chosen research topic and may be required to be taken by the student as decided by the supervisory committee of the student.

Note: Staff from other departments in the College of Veterinary Medicine and other relevant Colleges of University of Agriculture, Makurdi will be co-opted into the supervision of postgraduate based on the relevance on their expertise to the research being undertaken by the student.

FACILITIES

The Theriogenology unit has two laboratories with the minimum basis equipment to conduct research in various aspects of animal reproduction. Facilities in other laboratories in the College of Veterinary Medicine, veterinary Teaching Hospital and other Colleges will complement research work in the unit

OPTION: Doctor of Philosophy (PhD) in Veterinary Surgery

PHILOSOPHY

There is a continual need for the country to maintain aggressive post graduate programs that will not only maintain a high academic program in our Universities for teaching and research but also to improve the quality of animal health delivery system in the country. With the advent of the College of Veterinary Surgeons of Nigeria, to promote the later objective, our post graduate programs in clinical areas in the Universities must sufficiently incorporate the practical nature of the requirements of the College, while at the same time maintaining the high academic and research emphasis required of Universities.

OBJECTIVES

It is expected that candidates in surgery postgraduate programs for Ph.D degrees, will be sufficiently exposed to the requirements for membership and fellowship programs of the Surgery Specialty Group, of the College of Veterinary Surgeons of Nigeria during Ph.D degree programs, while at the same time maintaining a high academic and research training required of a university such as ours.

DEGREE IN VIEW

Ph.D in Veterinary Surgery, with specialization in Small Animal Surgery or in Large Animal Surgery.

ADMISSION REQUIREMENTS

Applicant must have a Doctor Veterinary Medicine (DVM) degree or equivalent qualification registrable with College of Council of Nigeria (VCN) and a master degree in Veterinary Surgery from a recognized university or have been upgraded from a Master's program in Veterinary Surgery within the University.

MODE OF STUDY

The program is designed for both full time or part time students. Each candidate is expected to participate in Surgery Clinics in his area of specialization, throughout his years of residency.

The Supervisory Committee of each candidate will prescribe courses for each candidate depending on his/her area of specialization and background, within or outside the department.'

DURATION OF PROGRAMME

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|------|-----------|---|
| (i) | Full Time | 6 semesters minimum
8 semesters maximum |
| (ii) | Part Time | 8 semesters minimum
10 semesters maximum |

SCORING AND GRADING

The courses may be examines and scored on percentage basis or by letter grading (A – F); where percentage is used. It will be converted to letter grading A,B,C & F with:-

A	–	70% and above	5 Points
B	–	60-69%	4 Points
C	–	50-59%	3 Points
F	–	Less than 50%	0Point

REQUIREMENT FOR GRADUATION

The program will be run in a minimum of 6 semesters and a maximum of 10 semesters for full time students, and a minimum of 8 semesters and a maximum of 12 semesters for part – time students.

Candidate must successfully complete all courses prescribed by his supervisory Committee and complete his/her thesis requirements.

PROGRAMME STRUCTURE

LIST OF COURSES FOR Ph.D

FIRST SEMESTER

CODE	COURSE TITLE	CREDIT UNIT
VSG 911	Comparative neuroanatomy	2(1 – 1)
VSG 912	Surgical Oncology	2(1 – 1)
VSG 913	Surgery of the unitary tract in small animal species	2(1 – 1)
VSG 914	Surgical diseases of the mammary gland in large animal species	2(1 – 1)
VSG 915	Exercises in large animal surgery	2(1 – 1)
VSG 916	Problem in large animal surgery	2(0 – 1)
VSG 917	Topics in large animal surgery	1(0 – 1)
VSG 918	Surgery clinics/seminars	1(0 – 1)
VSG 919	General anesthesia in large animal species	1(0 – 1)
TOTAL		15

SECOND SEMESTER

CODE	COURSE TITLE	CREDIT UNIT
VSG 921	Organ transplantation	2(1 – 1)
VSG 922	Cardiovascular surgery in small animal species	2(1 – 1)
VSG 923	Surgical diseases of the eye in cattle and horses	2(1 – 1)
VSG 924	Anesthesia in exotic species on animals	1(0 – 1)
VSG 925	Surgery of the reproductive system	2(1 – 0)
VSG 926	Experimental surgeries in large animal species	1(0 – 1)
VSG 927	Problem in large animal orthopedics	3(2 – 1)
VSG 928	Neuro Surgery	2(1 – 1)
VSG 929	Avian Orthopedic surgery	2(1 – 1)
VSG 930	Surgery Clinics/Seminars	1(0 – 1)
VSG 999	Research	12
TOTAL		18