Master of Veterinary Science (MVSc) in Animal Reproduction (Theriogenology)

Department of Farm Animal Production & Health
Faculty of Veterinary Medicine & Animal Science
University of Peradeniya, Sri Lanka

1. Introduction

Master of Veterinary Science (MVSc) programme is a graduate programme offered for veterinarians in the field of Veterinary Science. The Faculty of Veterinary Medicine and Animal Science (FVMAS) is mandated to offer this programme for veterinarians. A revised version of MVSc (Animal Reproduction) is offered by the Department of Farm Animal Production and Health (DFAPH) of the FVMAS for the year 2016 cycle. This programme can be followed as a two-year programme or as a one-year programme according to the requirement/ preference of the candidate. These programs are:

I) MVSc (Coursework and research): is a two-year specialization programme comprising of one year of taught courses (30 credits) and a year-long research component (32 credits).

II) MVSc (Coursework) is a one-year specialization programme comprising of a year of coursework only. This degree carries only 30 credits.

2. Objectives

To enable veterinary graduates to acquire advanced knowledge and skills in Animal Reproduction and Herd Health Management Practices in the rapidly developing livestock industry and allied sectors. This programme provides an opportunity for veterinarians engaged in livestock reproduction and production in the state and private sectors, and graduates seeking employment in mega dairies in Sri Lanka and abroad.

3. Programme eligibility

Prospective candidates must possess a degree in Veterinary Science and be registered as a Veterinary Surgeon. They are required to sit for an entry/aptitude examination conducted by the DFAPH.

4. Programme fees

Local students:	
MVSc by Coursework	Rs.200,000
MVSc by Coursework + Research	Rs.300,000
Foreign students:	
Asian countries	US$ 4000
Other countries	US$ 5000

Scholarships or other awards are not available from the University. Candidates applying for these programmes must be either self-funded or sponsored by their employers or an independent funding agency.

5. **Programme structure and duration**

I. MVSc (Coursework + Research) – Two years
II. MVSc by Coursework – One year

Coursework for both above programmes is the same. Those registered for the two-year programme (MVSc by coursework and research), need to conduct his/her research component during the second year.

6. **Courses**

All of the following courses are compulsory. Four courses will be offered during semester I.

Semester I courses

FC 5101 - Applied Statistics and Epidemiology for Veterinarians

Credits 4, Semester I
Time allocation: Lectures: 45 hours; Practicals: 30 hours

Content:

This course will encompass on principles, theories and applications of statistics, which will be required to pursue research for postgraduate training in all related programs. This will help the student in understanding the basic and advanced concepts of statistics and perform common analysis, In addition, this course will also cover the areas of epidemiological principles of management of animal diseases, application of epidemiological concepts in disease

investigation, design and implementation of disease control, surveillance and eradication programs.

FC 5102 - Project Planning, Scientific Writing and Veterinary Legislation

Credits 2, Semester !
Time allocation: Lectures: 30 hours; Practicals: 0 hours

Content:

This short course will cover a range of areas in which veterinarians in senior managerial positions should be familiar. It will deal with planning of development programs, their implementation monitoring and evaluation. It will also cover development of research proposals, including prioritization of research areas, and the different approaches to this exercise. Students will also be given instructions and assignments in scientific/technical writing, including, making a presentation. In addition, it also covers some selected legislation such as Animals Act, Animal Diseases Act, Animal Feeds Act, Fauna and Flora protection Act, Prevention of Cruelty of Animals Ordinance and OIE regulations.

FC 5103 - Economics, Business Management and Veterinary Administration

Credits 4, Semester I
Time allocation: Lectures: 45 hours; Practicals: 30 hours

Content:

This course will cover three modules. The module on the basic economics will provide the students with the basic theory of economics (micro and macro-economics). The

module on business management will provide the students with an understanding of business in context verses approaches to understand business and types of businesses. This will also provide knowledge on identifying objectives, roles of multiple objectives, role of multiple stakeholders, developing on overall strategy, management of changes required by multiple stakeholders, organizational development and personal training and development. The module on organizational management will provide the students with basic concepts, theory and principles of organizational behaviour and management.

FC 5104 - Seminar and Presentation
Credits 2, Semester I
Lectures: 5 hours; Practical: 60 hours
Content:

The students will learn how to be effective and efficient in everyday work, with a thorough understanding of commonly used computer applications/Microsoft Office applications can support daily administrative activities of a veterinarian. In addition, the course will provide special emphasis to PowerPoint presentation skills.

Semester II courses

Six courses will be offered during semester II of the programme.

FAPH 5201 - Theriogenology of Farm Animals
Credits 4, Semester II
Time allocation: Lectures: 45 hours; Practicals: 30 hours

Content:

The course will emphasize the interactions and relationships between the genetic composition of farm animals and their environment, which include management, nutrition and climate, through a consideration of the anatomical, physiological and endocrine factors that govern the normal reproductive health and influence the occurrence of important disorders and diseases that reduce fertility. It will also include the application of advanced reproductive biotechnologies for enhancing reproductive efficiency and genetic improvement

FAPH 5202 - Theriogenology of Companion Animals
Credits 2, Semester II
Time allocation: Lectures: 15 hours; Practicals: 30 hours

Content:

The course will cover a variety of sub-topics ranging from advanced canine, equine and feline reproductive physiology to breeding/pregnancy management and gynaecology and obstetrics to infertility management of canine and feline.

FAPH 5203 - Advanced Clinical Veterinary Reproduction
Credits 4, Semester II
Time allocation: Lectures: 15 hours; Practicals/clinicals: 120 hours

Content:

This course is comprised of practical training on farm animals together with case studies, presentations and discussions. It

is aimed at developing skills in investigation, diagnosis, treatment and management of sub-fertility and infertility in male and female farm animals for optimizing reproductive efficiency. The candidates will work with the senior staff of the Department of FAPH on a part-time basis (2-3 days per week) during this semester to acquire clinical skills on different disciplines in clinical reproduction such as treatment of reproductive disorders in cows, heifers and other farm animals presented to the indoor large animal hospital, the ambulatory clinic or pre-planned visits to large livestock farms or field infertility clinics in selected veterinary ranges. In addition, they will work on selection and management of male animals by performing breeding soundness examinations and hands on practice in hormonal manipulation of reproduction in female animals with special emphasis on cattle and buffalo. The objective of this course is to produce competent theriogenologists who are capable of handling the diverse array of reproductive problems encountered in the field and provide leadership in animal breeding strategies in different provinces in Sri Lanka.

FAPH 5204 - Applied Genetics and Breeding in Veterinary Practice

Credits 2, Semester II

Time allocation: Lectures: 30 hours; Practicals: 0 hours

Content:

This course is designed to impart knowledge on the application of genetics in improving animal production. The course will build up knowledge on basic theories of genetics through to advanced techniques used currently in the world for improving livestock production. The course is covered in three main topics vis fundamental genetics, quantitative

genetics and molecular genetics. This course will also provide the information on national breeding policy recommendations and guidelines practiced currently in the country. It also covers the genetic diseases in farm animals and applied genetics in selecting semen donor bulls and semen for national breeding programs.

FAPH 5205 – Applied Dairy Herd Health and Management Practices

Credits 4, Semester II
Time allocation: Lectures: 45 hours; Practicals: 30 hours

Content:

The course is geared towards updating practicing Veterinarians' knowledge on dairy cattle health and modern management practices. The course will address mainly two areas: (i) commonly encountered metabolic and infectious conditions of local dairy cattle, and (ii) modern management practices of calves, heifers, pregnant cows, lactating cows and dry cows.

FAPH 5206 - Clinical Case Report

Credits 2, Semester II
Time allocation: Lectures: 0 hours; Practical: 60 hours

Content:

This course will provide the student with a comprehensive knowledge in designing and carrying out a clinical investigation or participating in an on-going research project under the direction of a member of the faculty; submitting an abstract for presentation at a national meeting; The student

must be the first author of the manuscript. The publication may be original research, a clinical case report, or an in depth review article;

Semester III and IV courses

The candidates who wish to follow the 2 year MVSc (coursework + research) degree must complete the following research project during the second year of the program.

FAPH 5207 – Research Project
Credits 32, Semesters III and IV
Prerequisites: Completed all taught courses above except FAPH 5206
Time allocation: One year

Content:

The student will discuss with a supervisor of the department and select a topic or title of his/her research study related to animal reproduction. The study should include a research proposal, collection of data, analysis, results and discussion and a full thesis should be submitted at the end of the programme.

General Information

1. Candidates who wish to pursue for the second year research component will be permitted to proceed to the second year only after obtaining the necessary grades in

the courses offered. At the end of the first year, candidates will be required to make a presentation of the research proposal before a panel. A satisfactory grade will have to be obtained at this presentation before proceeding to the second year programme.

2. Course examinations will be held during the vacations and the results will be released before the end of the vacation (i.e., for the first semester courses, during the vacation between semesters and for the second semester courses, during the vacation following that semester).

3. Candidates who fail to acquire the required standard in the courses and in the presentation will have to repeat the specific course or presentation. No more than two repeat examinations will be permitted.

4. Candidates who follow the MVSc (coursework and research) will be required to submit their thesis at the end of the fourth semester, prior to a date stipulated by the respective programme coordinator. At the end of the second year, there will be an oral thesis defence examination.

5. The Grade Point Average (GPA) system of grading will be adopted in evaluating the performance of course examinations.

6. A credit weighted average of grade point average (GPA) is calculated. Candidates are required to score a minimum of 2 points for a pass in individual courses, and a GPA of 3 or above in all courses taken together.

APPLICATION PROCEDURE

Application forms and this Prospectus can be obtained from the Course Director or downloaded from the Faculty of Veterinary Medicine and Animal Science website (www.vet.pdn.ac.lk).

Duly completed application forms should reach the Course Director, Department of Farm Animal Production and Health, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, before 15th January 2016.

INQUIRIES

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