University of Pretoria Yearbook 2016

BVeterinary Science (Hons) Veterinary Science (08240001)

Duration of study 2 years

Programme information

The honours degree provides the student with a broad scientific background in the theoretical aspects of the modules that are required for eventual MMedVet degree studies. However, the conferment of the honours degree is not subject to future registration for master's degree studies.

Students are required to confirm whether a module will be presented in any particular year as not all the postgraduate modules are necessarily offered every year.

This enquiry should be directed to the relevant head of department according to the syllabi information provided in the list of modules in this publication.

Also consult the General Regulations G.16 to G.29.

Admission requirements

A candidate must have a BVSc or an equivalent degree. Entrance examinations for individual modules may be required.

In addition to the stipulations of the regulations, the head of department has the prerogative to require an entrance test prior to registration for honours degree studies. Candidates may also be required to pass an English proficiency test (TOEFL) at an acceptable level.

Additional requirements

Other programme-specific information

(i) The selected modules are approved by the relevant head of department.
(ii) Where the honours degree precedes a master’s degree, the modules chosen for the honours degree programme must support the particular field of study for the prospective master’s degree programme. The selection of modules is therefore approved by the relevant head of the department.

Examinations and pass requirements

In order to obtain the degree a student has to successfully complete all relevant modules. A student may not

register and sit for an examination more than twice in the same module.

A minimum examination mark of 50% is required in each of the modules where a semester or year mark is not required. However, where a semester or year mark is required, the latter should contribute at least 30% to the final mark. A subminimum of 40% is required in the examination and a final mark of at least 50% to pass the module. Instructions regarding requirements for semester, year or examination marks are published in the study guides, for the specific attention of students.

Pass with distinction

To obtain the degree with distinction, a minimum of 60% is required in each module, as well as a cumulative average of at least 75% for all the modules.

Curriculum: Year 1

Minimum credits: 60

Core modules

Radiology: Dogs and cats 781 (DIM 781)

Module credits	39.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study of radiology of dogs and cats.
The module extends over a period of one year. Approximately 18 lectures/group discussions are presented fortnightly on Wednesday mornings. Training is done mainly by means of practical interpretation of radiographic images and the presentation of 2 case reports.
The pathophysiology, diagnosis and prognosis of pathological conditions are discussed, as well as ways in which this field of study is linked to other diagnostic methods in order to confirm a diagnosis.
The module is normally only presented in alternate years.

Non-radiological diagnostic imaging of dogs and cats 782 (DIM 782)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study in non-radiological diagnostic imaging of dogs and cats.
The module extends over a period of about 8 months. Approximately 12 lectures/group discussions are presented fortnightly on Wednesday mornings. Approximately 76% is allocated to diagnostic ultrasound; 8% to MRI, CT and Scintigraphy each respectively. Training is done mainly by means of interactive lectures and discussions and practical interpretation of a variety of images and the presentation of two case reports.
The pathophysiology, diagnosis and prognosis of pathological conditions are discussed, as well as ways in which this field of study is linked to other diagnostic methods in order to confirm a diagnosis.
The module is normally only presented in alternate years.

Radiology: Horses 783 (DIM 783)

Module credits	33.00
Prerequisites	No prerequisites.
Contact time	1 lecture per week, 1 discussion class per week, 1 seminar per week

Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study of radiology of horses.
The module extends over a period of one year. Approximately 16 lectures/group discussions are presented fortnightly on Wednesday mornings. Training is done mainly by means of practical interpretation of radiographic images and the presentation of two case reports.
The pathophysiology, diagnosis and prognosis of pathological conditions are discussed as well as ways in which this field of study relates to other diagnostic methods used to confirm a diagnosis.
The module is normally only presented in alternate years.

Non-radiological diagnostic imaging of horses 784 (DIM 784)

Module credits	33.00
Prerequisites	No prerequisites.
Contact time	1 seminar per week, 1 practical per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study in non-radiological diagnostic imaging of horses.
The module extends over a period of about 9 months. Approximately 13 lectures/group discussions are presented fortnightly on Wednesday mornings. Approximately 80% is allocated to diagnostic ultrasound; 5% to MRI, 5% to CT and 10% to Scintigraphy. Training is done mainly by means of interactive lectures and discussions and practical interpretation of a variety of images and the presentation of two case reports.
The pathophysiology, diagnosis and prognosis of pathological conditions are discussed, as well as ways in which this field of study is linked to other diagnostic methods in order to confirm a diagnosis.
The module is normally only presented in alternate years.

Small animal medicine 702 (GEN 702)

Module credits	33.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study in small animal medicine. Study of the conditions of internal organs is not included in this module. The module may include selected practical aspects.

Equine medicine 703 (GEN 703)

Module credits	40.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study in equine medicine.
The module may include selected practical aspects.

Small animal medicine 707 (GEN 707)

Module credits	37.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study in small animal medicine specifically applicable to conditions of the internal organs.
The module may include selected practical aspects.

Small animal behavioural medicine 709 (GEN 709)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Broad-based theoretical and selected practical training in small animal behavioural medicine aimed at the provision of a high standard of clinical services in aspects of small animal behavioural medicine.

Clinical pathology 701 (KPA 701)

Module credits	32.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study in clinical pathology including enzymology, cytology, haematology as well as clinical pathology of the kidney.

Clinical pathology 702 (KPA 702)

Module credits	31.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study in clinical pathology including blood-gas and acid-base balance, gastro-enterology, haemostasis, diagnostic indices and principles.

Necropsy technique and interpretation 807 (PAT 807)

Module credits	28.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

An advanced module in necropsy techniques, interpretation and specimen collection.

Ophthalmological pathology 808 (PAT 808)

Module credits	20.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

Macroscopic and microscopic pathology of the diseases of the eyes of domestic animals.

Anatomy 703 (ANG 703)

Module credits	32.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology

Period of presentation	Year

Module content

An in-depth study of the osteology, arthrology, myology, angiology, neurology, splanchnology and topographical anatomy of the horse. Special attention to clinically important sections of the anatomy.

Anatomy 705 (ANG 705)

Module credits	32.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

An in-depth study of the osteology, arthrology, myology, angiology, neurology, splanchnology and topographical anatomy of the dog. Special attention to clinically important sections of the anatomy.

Anatomy 774 (ANG 774)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

The number of lectures and credits will depend on the course compiled for the student. A formal module comprises at least 6 credits.
The modules are compiled for each student individually to fulfil the specific needs of the student concerned.

Anaesthesiology 771 (ANV 771)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical training on a species-orientated basis, including domestic animals (horses, dogs and cats), birds, laboratory animals and wildlife species. The module covers the latest techniques in anaesthetising compromised animals and the use of total intravenous anaesthetic techniques, positive pressure ventilation, peripheral muscle relaxants and monitor apparatus.

Surgery: Small animals 703 (CHV 703)

Module credits	33.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study of small animal soft tissue surgery. The module extends over a period of one year. Approximately 15 lectures/group discussions are presented every third week on Wednesday mornings and a computer based multi choice test is conducted with the completion each of each section. Training is done mainly by means of PPT presentations by the lecturer or students of specific surgical conditions and the presentation of two case reports. The course starts with disinfecting agents, detergents, aseptic technique and characteristics of different suture materials, followed by surgical oncology of all the different neoplastic conditions and reconstruction skin surgery, surgery of the Respiratory system, Gastro-intestinal surgery, and surgery of the kidneys and urology system, as well as urogenital surgery. The module is normally only presented in alternate years.

Surgery: Horses 704 (CHV 704)

Module credits	33.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study of equine surgery.

Physiology 787 (FSL 787)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

Pathophysiology of clinical syndromes.

Physiology 788 (FSL 788)

Module credits	30.00
Prerequisites	No prerequisites.

Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

Physiology of a selected topic (capita selecta).

Ophthalmology 700 (OFM 700)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

A year module consisting of eight theoretical and two practical sessions on ophthalmology of domestic animals (large and small animals).
The module covers the anatomy and physiology of the eye and its adnexa, examination techniques and aids, ocular therapeutics and treatment techniques, surgical and non-surgical conditions of the orbit, eyelids, third eyelid, conjunctiva, lachrymal system, cornea, sclera, anterior chamber, uvea lens, vitreous and retina, and hereditary diseases.
Practical work includes the use of instrumentation and accessories during examination and surgical procedures.

Clinical pharmacology 877 (FAK 877)

Module credits	30.00
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

Advanced veterinary pharmacology including pharmaceutics, pharmacokinetics, pharmacotherapeutics and pharmacodynamics. Clinical pharmacology relevant to selected domesticated, exotic and wildlife species in the area of specialization (capita selecta), including species-specific therapeutic objectives and rational pharmacotherapy; specialised drug therapy pertaining to relevant species and/or organ systems; drug use control and adverse drug reactions.

Surgery: Small animals 705 (CHV 705)

Module credits	33.00

Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Applicable aspects of small animal orthopaedic surgery (fractures and joints), spinal surgery and oromaxillo-facial surgery. The module extends over a period of one year. Approximately 15 lectures/group discussion are presented every third week on Wednesday mornings and a computer based of PPT presentations by the lecturer or students of each surgical conditions and the presentation of two case reports. The module is normally only presented in alternate years.

Mechanisms of disease 871 (PAT 871)

Module credits	20.00
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

Mechanisms of disease (for Medicine students)

Histology 800 (HIS 800)

Module credits	20.00
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

An in-depth comparative study of light microscopical structure and detailed ultrastructure of all the tissues and organs of domestic animals, birds and selected wildlife species.

Curriculum: Final year

Minimum credits: 60

Core modules

Radiology: Dogs and cats 781 (DIM 781)

Module credits	39.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study of radiology of dogs and cats.
The module extends over a period of one year. Approximately 18 lectures/group discussions are presented fortnightly on Wednesday mornings. Training is done mainly by means of practical interpretation of radiographic images and the presentation of 2 case reports.
The pathophysiology, diagnosis and prognosis of pathological conditions are discussed, as well as ways in which this field of study is linked to other diagnostic methods in order to confirm a diagnosis.
The module is normally only presented in alternate years.

Non-radiological diagnostic imaging of dogs and cats 782 (DIM 782)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study in non-radiological diagnostic imaging of dogs and cats.
The module extends over a period of about 8 months. Approximately 12 lectures/group discussions are presented fortnightly on Wednesday mornings. Approximately 76% is allocated to diagnostic ultrasound; 8% to MRI, CT and Scintigraphy each respectively. Training is done mainly by means of interactive lectures and discussions and practical interpretation of a variety of images and the presentation of two case reports.
The pathophysiology, diagnosis and prognosis of pathological conditions are discussed, as well as ways in which this field of study is linked to other diagnostic methods in order to confirm a diagnosis.
The module is normally only presented in alternate years.

Radiology: Horses 783 (DIM 783)

Module credits	33.00
Prerequisites	No prerequisites.
Contact time	1 lecture per week, 1 discussion class per week, 1 seminar per week

Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study of radiology of horses.
The module extends over a period of one year. Approximately 16 lectures/group discussions are presented fortnightly on Wednesday mornings. Training is done mainly by means of practical interpretation of radiographic images and the presentation of two case reports.
The pathophysiology, diagnosis and prognosis of pathological conditions are discussed as well as ways in which this field of study relates to other diagnostic methods used to confirm a diagnosis.
The module is normally only presented in alternate years.

Non-radiological diagnostic imaging of horses 784 (DIM 784)

Module credits	33.00
Prerequisites	No prerequisites.
Contact time	1 seminar per week, 1 practical per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study in non-radiological diagnostic imaging of horses.
The module extends over a period of about 9 months. Approximately 13 lectures/group discussions are presented fortnightly on Wednesday mornings. Approximately 80% is allocated to diagnostic ultrasound; 5% to MRI, 5% to CT and 10% to Scintigraphy. Training is done mainly by means of interactive lectures and discussions and practical interpretation of a variety of images and the presentation of two case reports.
The pathophysiology, diagnosis and prognosis of pathological conditions are discussed, as well as ways in which this field of study is linked to other diagnostic methods in order to confirm a diagnosis.
The module is normally only presented in alternate years.

Small animal medicine 702 (GEN 702)

Module credits	33.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study in small animal medicine. Study of the conditions of internal organs is not included in this module. The module may include selected practical aspects.

Equine medicine 703 (GEN 703)

Module credits	40.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study in equine medicine.
The module may include selected practical aspects.

Small animal medicine 707 (GEN 707)

Module credits	37.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study in small animal medicine specifically applicable to conditions of the internal organs.
The module may include selected practical aspects.

Small animal behavioural medicine 709 (GEN 709)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Broad-based theoretical and selected practical training in small animal behavioural medicine aimed at the provision of a high standard of clinical services in aspects of small animal behavioural medicine.

Clinical pathology 701 (KPA 701)

Module credits	32.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study in clinical pathology including enzymology, cytology, haematology as well as clinical pathology of the kidney.

Clinical pathology 702 (KPA 702)

Module credits	31.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced study in clinical pathology including blood-gas and acid-base balance, gastro-enterology, haemostasis, diagnostic indices and principles.

Necropsy technique and interpretation 807 (PAT 807)

Module credits	28.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

An advanced module in necropsy techniques, interpretation and specimen collection.

Ophthalmological pathology 808 (PAT 808)

Module credits	20.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

Macroscopic and microscopic pathology of the diseases of the eyes of domestic animals.

Anatomy 703 (ANG 703)

Module credits	32.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology

Period of presentation	Year

Module content

An in-depth study of the osteology, arthrology, myology, angiology, neurology, splanchnology and topographical anatomy of the horse. Special attention to clinically important sections of the anatomy.

Anatomy 705 (ANG 705)

Module credits	32.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

An in-depth study of the osteology, arthrology, myology, angiology, neurology, splanchnology and topographical anatomy of the dog. Special attention to clinically important sections of the anatomy.

Anatomy 774 (ANG 774)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

The number of lectures and credits will depend on the course compiled for the student. A formal module comprises at least 6 credits.
The modules are compiled for each student individually to fulfil the specific needs of the student concerned.

Anaesthesiology 771 (ANV 771)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical training on a species-orientated basis, including domestic animals (horses, dogs and cats), birds, laboratory animals and wildlife species. The module covers the latest techniques in anaesthetising compromised animals and the use of total intravenous anaesthetic techniques, positive pressure ventilation, peripheral muscle relaxants and monitor apparatus.

Surgery: Small animals 703 (CHV 703)

Module credits	33.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study of small animal soft tissue surgery. The module extends over a period of one year. Approximately 15 lectures/group discussions are presented every third week on Wednesday mornings and a computer based multi choice test is conducted with the completion each of each section. Training is done mainly by means of PPT presentations by the lecturer or students of specific surgical conditions and the presentation of two case reports. The course starts with disinfecting agents, detergents, aseptic technique and characteristics of different suture materials, followed by surgical oncology of all the different neoplastic conditions and reconstruction skin surgery, surgery of the Respiratory system, Gastro-intestinal surgery, and surgery of the kidneys and urology system, as well as urogenital surgery. The module is normally only presented in alternate years.

Surgery: Horses 704 (CHV 704)

Module credits	33.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Advanced theoretical study of equine surgery.

Physiology 787 (FSL 787)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

Pathophysiology of clinical syndromes.

Physiology 788 (FSL 788)

Module credits	30.00
Prerequisites	No prerequisites.

Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

Physiology of a selected topic (capita selecta).

Ophthalmology 700 (OFM 700)

Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

A year module consisting of eight theoretical and two practical sessions on ophthalmology of domestic animals (large and small animals).
The module covers the anatomy and physiology of the eye and its adnexa, examination techniques and aids, ocular therapeutics and treatment techniques, surgical and non-surgical conditions of the orbit, eyelids, third eyelid, conjunctiva, lachrymal system, cornea, sclera, anterior chamber, uvea lens, vitreous and retina, and hereditary diseases.
Practical work includes the use of instrumentation and accessories during examination and surgical procedures.

Clinical pharmacology 877 (FAK 877)

Module credits	30.00
Prerequisites	No prerequisites.
Contact time	1 lecture per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

Advanced veterinary pharmacology including pharmaceutics, pharmacokinetics, pharmacotherapeutics and pharmacodynamics. Clinical pharmacology relevant to selected domesticated, exotic and wildlife species in the area of specialization (capita selecta), including species-specific therapeutic objectives and rational pharmacotherapy; specialised drug therapy pertaining to relevant species and/or organ systems; drug use control and adverse drug reactions.

Surgery: Small animals 705 (CHV 705)

Module credits	33.00

Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Applicable aspects of small animal orthopaedic surgery (fractures and joints), spinal surgery and oromaxillo-facial surgery. The module extends over a period of one year. Approximately 15 lectures/group discussion are presented every third week on Wednesday mornings and a computer based of PPT presentations by the lecturer or students of each surgical conditions and the presentation of two case reports. The module is normally only presented in alternate years.

Mechanisms of disease 871 (PAT 871)

Module credits	20.00
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

Mechanisms of disease (for Medicine students)

Histology 800 (HIS 800)

Module credits	20.00
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

An in-depth comparative study of light microscopical structure and detailed ultrastructure of all the tissues and organs of domestic animals, birds and selected wildlife species.