

University of Pretoria Yearbook 2023

BVScHons *Veterinary Clinical Sciences* (08240071)

Department Companion Animal Clinical Studies

Minimum duration of study 1 year

Total credits 120

NQF level 08

Admission requirements

1. BVSc (or equivalent) degree
2. An admissions examination may be required

General information

University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.

Curriculum: Final year

Minimum credits: 120

Choose at least one of the Core modules from the list

Core modules

Small animal surgery 781 (CHV 781)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

Advanced theoretical study of small animal orthopaedic surgery.

Small animal surgery 782 (CHV 782)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

Advanced theoretical study of small animal soft tissue surgery.

Small animal medicine 781 (GEN 781)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

Advanced theoretical study in canine and feline medicine (non-internal organs). The module covers establishment of a minimum database, identification of problems, establishment of differential diagnoses, the logical selection of appropriate special procedures and clinical pathological analyses, logical interpretation of results and the understanding of the risk-benefit and financial implications of such special procedures for each organ system. Study of the conditions of internal organs is not included in this module.

Small animal medicine 782 (GEN 782)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

Advanced theoretical study in canine and feline internal medicine specifically applicable to conditions of the internal organs. The module covers establishment of a minimum database, identification of problems, establishment of differential diagnoses, the logical selection of appropriate special procedures and clinical pathological analyses, logical interpretation of results and the understanding of the risk-benefit and financial implications of such special procedures for each organ system.

Elective modules

Clinical Anatomy 781 (ANG 781)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Anatomy and Physiology
Period of presentation	Year

Module content

(BVSc graduates only)

An in-depth study of the osteology, arthrology, myology, angiology, neurology, splanchnology and topographical anatomy of a species of interest. Special attention to clinically important sections of the anatomy. The course will allow for further studies in anatomy for intercalation with subjects such as diagnostic imaging and surgery.

Anaesthesiology 781 (ANV 781)

Module credits	30.00
NQF Level	08

Language of tuition Module is presented in English

Department Companion Animal Clinical Studies

Period of presentation Year

Module content

(BVSc graduates only)

Advanced theoretical training on canine and feline anaesthesia and analgesia. 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.

Small animal anaesthesiology 782 (ANV 782)

Module credits 30.00

NQF Level 08

Prerequisites No prerequisites.

Contact time 30 Hours

Language of tuition Module is presented in English

Department Companion Animal Clinical Studies

Period of presentation Year

Module content

Theoretical and practical training in specific areas of small animal anaesthesia and analgesia for the veterinary nurse. Formulation and implementation of appropriate strategies to comply with relevant standards.

Animal welfare principles 781 (ANW 781)

Module credits 30.00

NQF Level 08

Contact time 70 contact hours

Language of tuition Module is presented in English

Department Companion Animal Clinical Studies

Period of presentation Year

Module content

Advanced training in general principles and assessment of animal welfare with an emphasis on farm animals and animals destined for slaughter. Comparative evaluation of animal welfare in different contexts including wild and exotic species, companion animals, laboratory, teaching and working animals, and in disaster situations.

African wildlife disease management 781 (AWD 781)

Module credits 30.00

NQF Level 08

Language of tuition Module is presented in English

Department Production Animal Studies

Period of presentation Year

Module content

Advanced training in infectious, parasitic and nutritional diseases of wildlife and their management in African wildlife species under ranching conditions. Also included are ostrich and crocodile farming.

Clinical reproduction 781 (CLR 781)

Module credits 30.00

NQF Level 08

Language of tuition Module is presented in English

Department Production Animal Studies

Period of presentation Year

Module content

(BVSc graduates only)

Causes, pathogenesis, control, treatment and prevention of diseases and malfunctions of reproduction in cattle, as well as the evaluation of males and females for breeding soundness. Also included are certain aspects of assisted reproduction and reproductive biotechnology, such as control of the oestrous cycle and parturition. A veterinary perspective (indications, limitations, current and future possibilities, and methods) on reproductive biotechnologies.

Controlled and notifiable 781 (CND 781)

Module credits 30.00

NQF Level 08

Language of tuition Module is presented in English

Department Veterinary Tropical Diseases

Period of presentation Year

Module content

Advanced training in diseases with implications on trade and/or human health/wellbeing. The module will convey advanced knowledge in the specific disease, their management and basic monitoring epidemiological tools. Attention will also be given to emerging diseases as well as diseases associated with wildlife ranching.

Non-radiological diagnostic imaging of dogs and cats 791 (DIM 791)

Module credits 30.00

NQF Level 08

Prerequisites No prerequisites.

Language of tuition Module is presented in English

Department Companion Animal Clinical Studies



Period of presentation	Year
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Module content

(BVSc graduates only)

Advanced study in non-radiological diagnostic imaging of dogs and cats. Approximately 76% is allocated to diagnostic ultrasound; 8% to MRI, CT and Scintigraphy each respectively. The pathophysiology, diagnosis and prognosis of pathological conditions are also discussed, as well as ways in which this field of study is linked to other diagnostic methods in order to confirm a diagnosis.

Non-radiological diagnostic imaging of horses 792 (DIM 792)

Module credits	30.00
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NQF Level	08
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Prerequisites	No prerequisites.
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Language of tuition	Module is presented in English
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Department	Companion Animal Clinical Studies
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Period of presentation	Year
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Module content

Advanced study in non-radiological diagnostic imaging of horses. Approximately 80% is allocated to diagnostic ultrasound; 5% to MRI, 5% to CT and 10% to Scintigraphy. The pathophysiology, diagnosis and prognosis of pathological conditions are also discussed.

Non-radiological diagnostic imaging of ruminants 793 (DIM 793)

Module credits	30.00
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NQF Level	08
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Prerequisites	No prerequisites.
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Language of tuition	Module is presented in English
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Department	Companion Animal Clinical Studies
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Period of presentation	Year
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Module content

(BVSc graduates only)

Advanced study in non-radiological diagnostic imaging of ruminants. Approximately 85% is allocated to diagnostic ultrasound; 5% to MRI, CT and Scintigraphy each respectively. The pathophysiology, diagnosis and prognosis of pathological conditions are also discussed, as well as ways in which this field of study is linked to other diagnostic methods in order to confirm a diagnosis.

Radiology: Dogs and cats 794 (DIM 794)

Module credits	30.00
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NQF Level	08
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Prerequisites	No prerequisites.
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Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

Advanced study of radiology of dogs and cats, including discussion on the pathophysiology, diagnosis and prognosis of pathological conditions.

Radiology: Horses 795 (DIM 795)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

Advanced study of radiology of horses, including discussion on the pathophysiology, diagnosis and prognosis of pathological conditions.

Radiology: Ruminants 796 (DIM 796)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

Advanced study of radiology of ruminants.

The pathophysiology, diagnosis and prognosis of pathological conditions are also discussed as well as ways in which this field of study relates to other diagnostic methods in order to confirm a diagnosis.

Diagnostic pathology 781 (DPA 781)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English



Department Paraclinical Sciences

Period of presentation Year

Module content

(BVSc graduates only)

Diagnostic pathology of the diseases in various animal species.

Veterinary epidemiology 7481 (EPL 781)

Module credits 30.00

NQF Level 08

Prerequisites No prerequisites.

Language of tuition Module is presented in English

Department Production Animal Studies

Period of presentation Year

Module content

(BVSc graduates only)

An introductory module in veterinary epidemiology designed to provide a foundation in epidemiology to allow for a better understanding of epidemiological reports.

Advanced equine practice 781 (EQM 781)

Module credits 30.00

NQF Level 08

Prerequisites No prerequisites.

Contact time 70 hours (online and face-to-face)

Language of tuition Module is presented in English

Department Companion Animal Clinical Studies

Period of presentation Year

Module content

BVSc graduates only.

Advanced theoretical study of equine surgery and training in the diagnosis, treatment and management of equine internal medical diseases with aim of acquiring in-depth knowledge of the principles and practice of equine internal medicine and surgery and its supporting disciplines.

Clinical pharmacology 781 (FAK 781)

Module credits 30.00

NQF Level 08

Language of tuition Module is presented in English

Department Paraclinical Sciences

Period of presentation Year

Module content

(BVSc graduates only)

Advanced studies in veterinary clinical pharmacology studies pharmacotherapeutic features related to veterinary medicine and species-specific therapeutic objectives.

Mechanisms of drug action 782 (FAK 782)

Module credits 30.00

NQF Level 08

Prerequisites No prerequisites.

Language of tuition Module is presented in English

Department Paraclinical Sciences

Period of presentation Year

Module content

Fundamentals of the pharmacokinetics and pharmacodynamics of veterinary drugs.

Physiology 781 (FSL 781)

Module credits 30.00

NQF Level 08

Prerequisites No prerequisites.

Language of tuition Module is presented in English

Department Anatomy and Physiology

Period of presentation Year

Module content

Advanced level, with the emphasis on applied and pathophysiology of disease.

Small animal clinical behaviour 783 (GEN 783)

Module credits 30.00

NQF Level 08

Prerequisites BVSc, DVN (combined with RPL approval) and BVetNurs graduates only.

Contact time 70 contact hours

Language of tuition Module is presented in English

Department Companion Animal Clinical Studies

Period of presentation Year

Module content

Advanced study of low stress handling techniques the clinical approach to assessment, diagnosis and management of behaviour disorders in dogs and cats, including the role of behaviour in small animal welfare assessment in various contexts. Emphasis is placed on developing practical skills.

Herd and primary animal health 781 (HAH 781)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Production Animal Studies
Period of presentation	Year

Module content

The module will enable students to integrate and apply knowledge so that health and production problems can be identified and solved on a herd basis, while health status and production effectiveness can be improved from a holistic and cost effective viewpoint. The module will also include aspects of primary animal health care that will be applicable to needs of the emerging farming sector.

Histology 781 (HTY 781)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Anatomy and Physiology
Period of presentation	Year

Module content

An in-depth comparative study of light and electron microscopic histology of domestic animals, birds and selected wildlife species.

Clinical pathology 784 (KPA 784)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

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

Clinical pathology 785 (KPA 785)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

Advanced study in clinical pathology including proteins, blood-gas and acid-base balance, gastro-enterology, haemostasis, and diagnostic test characteristics in domestic animals.

Laboratory animal science 782 (LAS 782)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

Section 1: (10 credits)

Application of procedures within an accredited laboratory animal facility, with focus on laboratory animal management (rats and mice), including housing and care; enrichment; breeding; methods of dosing and methods of sample collection.

Section 2: (20 credits)

The biology of laboratory animals, their management and use as models in biomedical research.

The aim is to extend the activities concerning the care and use of laboratory animals for research, training and testing. Further to affirm the concept on which the modern practice of experimenting with animals is based, to take into consideration the controversy evoked in the climate of animal rights. The special professional role required of the veterinary and paraveterinary professions to enhance humane practice with regard to animal experiments as well as the promotion of a productive scientific effort in the biomedical sciences.

Laboratory diagnostics procedures 783 (LAS 783)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

The module will focus on basic tests available in laboratory diagnostics for infectious and parasitic diseases. Focus will be placed on the interpretation of tests, issuing of certificates, validation of test procedures, quality assurance and laboratory safety. The course will include basic within the laboratory of the department.

Research ethics for laboratory animal science 784 (LAS 784)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

An advanced module in research methodology for veterinarians involved in laboratory animals and/or laboratory work. The study will focus on animal ethics, animal ethics committee, evaluation of protocols and study design. Focus will also be placed on legislation for the use and protection of animals.

Necropsy technique and interpretation 781 (NTI 781)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

(BVSc graduates only)

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

Ophthalmology 781 (OFM 781)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

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. page

Production animal management 781 (PAM 781)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Production Animal Studies
Period of presentation	Year

Module content

The module content includes the study of animal genetics, nutrition, management, housing, keeping of records, hygiene, welfare and behaviour, with special emphasis on nutrition. The species concerned are dairy cattle, beef cattle, small stock and pigs.

Mechanisms of disease 781 (PAT 781)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

(BVSc graduates only)

An advanced module covering the mechanisms behind disease processes.

Practice management and veterinary drug legislation and control 781 (PPH 781)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Contact time	70 contact hours
Language of tuition	Module is presented in English

Department Paraclinical Sciences

Period of presentation Year

Module content

Theoretical and practical training in specific areas of business management and drug legislation. The course deals with the basic principles of veterinary practice management with emphasis on the role of the veterinary nurse and includes practice management as a career enhancement for veterinary nurses.

Poultry health and nutrition 781 (PVT 781)

Module credits 30.00

NQF Level 08

Prerequisites No prerequisites.

Language of tuition Module is presented in English

Department Production Animal Studies

Period of presentation Year

Module content

Advanced training in poultry health, production systems and nutrition.

Reproductive biology 781 (RPT 781)

Module credits 30.00

NQF Level 08

Language of tuition Module is presented in English

Department Production Animal Studies

Period of presentation Year

Module content

(BVSc graduates only)

Includes the physiology and endocrinology of puberty, the oestrous cycle, pregnancy, parturition, the puerperium, as well as that of the foetus and the neonate. Also included are the physiology and endocrinology of the bull, more specifically that of puberty, spermatogenesis, the scrotum, the accessory sex glands, libido, erection, coitus, sperm and semen. Also included are certain aspects of reproductive biotechnology, namely the biotechnical aspects of collection, examination and freezing of semen and embryos, embryo transfer and in vitro fertilisation.

Reproductive physiology of animals 782 (RPT 782)

Module credits 30.00

NQF Level 08

Language of tuition Module is presented in English

Department Production Animal Studies

Period of presentation Year

Module content

Students will gain advanced theoretical knowledge of general reproductive endocrinology and physiology of animals. It includes detailed knowledge and application of the structures of different hormone groups, forms of storage, transportation, methods of action and secretion control mechanisms: hormonal control of female reproductive cycles; fertilisation, sexing, gestation, pathogenesis of teratogenic deviations and partus, the puerperal period and re-implantation; male reproductive endocrinology and physiology; examining of fresh and frozen semen, including advanced methods; the use of hormone profiles to monitor gestation and cycles, and artificial breeding.

Ruminant health and medicine 781 (RUM 781)

Module credits 30.00

NQF Level 08

Prerequisites No prerequisites.

Language of tuition Module is presented in English

Department Production Animal Studies

Period of presentation Year

Module content

(BVSc graduates only)

Advanced theoretical study in ruminant medicine specifically applicable to conditions of the gastrointestinal tract, liver and production diseases, liver, cardiovascular, respiratory and urinary system, skin, nervous system and musculo-skeletal system, skin and appendages.

Small animal critical care 781 (SAC 781)

Module credits 30.00

NQF Level 08

Prerequisites No prerequisites.

Contact time 30 Hours

Language of tuition Module is presented in English

Department Companion Animal Clinical Studies

Period of presentation Year

Module content

Theoretical and practical training in specific areas of small animal critical care for the veterinary nurse. Formulation and implementation of appropriate strategies to comply with relevant standards.

Organic and inorganic toxicology 785 (TOK 785)

Module credits 30.00

NQF Level 08



Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

Advanced training on the most important and well-known plant, mycotoxins, zootoxicoses and organic and inorganic poisons.

Basic veterinary toxicology 786 (TOK 786)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

Introduction to the underlying principles of toxicology. Includes training in laboratory based toxicity testing and methodology

Porcine health, production and nutrition 781 (VKH 781)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Production Animal Studies
Period of presentation	Year

Module content

Advanced theoretical study in pig housing, nutrition and disease for animal housed both outdoor and intensive, specifically applicable to conditions of Southern Africa.

Veterinary principles of auditing 781 (VLP 781)

Module credits	30.00
NQF Level	08
Contact time	70 hours (online and face-to-face)
Language of tuition	Module is presented in English
Department	Paraclinical Sciences



Period of presentation	Year
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Module content

(BVSc graduates only)

The following module will focus on auditing and compliance at the farm, abattoir and processing plant level.

Veterinary legislation and policy 782 (VLP 782)

Module credits	30.00
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NQF Level	08
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Prerequisites	No prerequisites.
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Contact time	70 contact hours
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Language of tuition	Module is presented in English
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Department	Veterinary Tropical Diseases
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Period of presentation	Year
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Module content

Broad-based training in understanding, interrogating and critically applying veterinary policy (including applicable South African legislation), and international phytosanitary and sanitary policy and trade.

Veterinary risk assessment 783 (VLP 783)

Module credits	30.00
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NQF Level	08
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Prerequisites	No prerequisites.
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Language of tuition	Module is presented in English
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Department	Production Animal Studies
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Period of presentation	Year
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Module content

(BVSc graduates only)

The module will introduce concepts in risk assessment, risk management and risk communication.

Veterinary milk and meat hygiene 791 (VPH 791)

Module credits	30.00
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NQF Level	08
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Prerequisites	No prerequisites.
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Language of tuition	Module is presented in English
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Department	Paraclinical Sciences
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Period of presentation	Year
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Module content

Advanced knowledge and application of veterinary meat (Red meat, Poultry, Ostrich, Wild Game, Crocodiles and fish) and milk (Raw milk and milk products) hygiene and food safety (including Zoonotic / food borne diseases). Also includes auditing, certification for export and the applicable interpretation of laboratory results. Emerging and re-emerging diseases.

Regulations and rules

The regulations and rules for the degrees published here are subject to change and may be amended after the publication of this information.

The [General Academic Regulations \(G Regulations\)](#) and [General Student Rules](#) apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations.

University of Pretoria Programme Qualification Mix (PQM) verification project

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