University of Pretoria Yearbook 2017

BVSc (08130005)

Duration of study	6 years
Total credits	948

Programme information

Each student must apply immediately after first admission to the Registrar of the South African Veterinary Council for registration as a student in Veterinary Science. Registration is compulsory and must be renewed annually for the duration of the study.

After the degree has been conferred, graduates are required to register with the South African Veterinary Council as veterinarians before they may practise in South Africa in this capacity.

Admission requirements

- All programmes in this Faculty include selection procedures, which are based on academic merit, the result of the National Benchmark Test (NBT) and a Value-added Questionnaire, among others. Applicants, who indicate BVSc (Bachelor in Veterinary Science) or the Diploma in Veterinary Nursing as their first choice, will be given preference. In order to retain provisional admission candidates should comply with the minimum subject and Admission Point Score (APS) requirements based on their final school-year examination results.
- The following persons will be considered for admission: a candidate who is in possession of a certificate that is deemed by the University to be equivalent to the required Grade 12 certificate with university endorsement; a candidate who is a graduate from another tertiary institution or has been granted the status of a graduate of such an institution; and a candidate who is a graduate of another faculty at the University of Pretoria.
- Life Orientation is excluded when calculating the APS.
- The NBT and the Value-added Questionnaire are compulsory components of the selection process. Applicants with an APS between 30 and 32 will be considered for access into the BSc – Extended programme for the Biological and Agricultural Sciences. Candidates in this category are admitted into the second semester of the first year of BVSc, after successful completion of the first three semesters of the BSc – Extended programme.

Minimum requirements for 2017												
Achievement level												
English				**Mathematics**				**Physical Science**				**APS**
NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	
5	3	C	C	5	3	C	C	5	3	C	C	32

Other programme-specific information

For some modules, only a promotional mark will be given; the module will be credited in a later semester.

Duration of study
(i) Six years of full-time study
(ii) Seven years of full-time study for those students who access the BVSc programme through the four-year BSc programme.

Practical/clinical/internship information

Clinical experience (including practical work)
Proof of satisfactory completion of prescribed clinical and practical components of the programme as prescribed below must be submitted to the Head: Student Administration of the Faculty, prior to the commencement of the final examinations. Failure to do so may lead to examination refusal.

- In state control of stock diseases and administration: experience at an approved institution as approved by the Dean.
- Practical and clinical experience at the Faculty and at approved private practices as well as other institutions as approved by the Dean.

Pass with distinction

The BVSc degree is conferred with distinction on a student who has obtained at least 60% for each module during the last three years of study, and a cumulative average of at least 75% for all the modules in the final year of BVSc study.

Curriculum: Year 1

Minimum credits: 124

Fundamental modules

Language and study skills 110 (LST 110)

Module credits	6.00
Service modules	Faculty of Natural and Agricultural Sciences Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Unit for Academic Literacy
Period of presentation	Semester 1

Module content

The module aims to equip students with the ability to cope with the reading and writing demands of scientific disciplines.

Academic orientation 108 (UPO 108)

Module credits	0.00
Language of tuition	Afrikaans and English is used in one class
Academic organisation	Vet Sc Dean's Office
Period of presentation	Year

Academic information management 102 (AIM 102)

Module credits	6.00
Service modules	Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science
Contact time	2 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Information Science
Period of presentation	Semester 2

Module content
Find, evaluate, process, manage and present information resources for academic purposes using appropriate technology. Apply effective search strategies in different technological environments. Demonstrate the ethical and fair use of information resources. Integrate 21st-century communications into the management of academic information.

Core modules

Biometry 120 (BME 120)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Natural and Agricultural Sciences Faculty of Veterinary Science
Prerequisites	At least 4 (50-59%) in Mathematics in the Grade 12 examination, or at least 50% in both Statistics 113, 123
Contact time	1 practical per week, 4 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Statistics
Period of presentation	Semester 2

Module content
Simple statistical analysis: Data collection and analysis: Samples, tabulation, graphical representation, describing location, spread and skewness. Introductory probability and distribution theory. Sampling distributions and the central limit theorem. Statistical inference: Basic principles, estimation and testing in the one- and two-sample cases (parametric and non-parametric). Introduction to experimental design. One- and twoway designs, randomised blocks. Multiple statistical analysis: Bivariate data sets: Curve fitting (linear and non-linear), growth curves. Statistical inference in the simple regression case. Categorical analysis: Testing goodness of fit and contingency tables. Multiple regression and correlation: Fitting and testing of models. Residual analysis. Computer literacy: Use of computer packages in data analysis and report writing.

Chemistry 151 (CMY 151)

Module credits	16.00
Service modules	Faculty of Health Sciences
Prerequisites	Refer to Regulation 1.2
Contact time	4 lectures per week, 1 practical per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Chemistry
Period of presentation	Semester 1

Module content

Theory: Introduction to general chemistry: Measurement in chemistry, matter and energy, atomic theory and the periodic table, chemical compounds and chemical bonds; quantitative relationships in chemical reactions, states of matter and the kinetic theory; solutions and colloids, acids, bases and ionic compounds, chemical equilibria. Introduction to organic chemistry: Chemical bonding in organic compounds, nature, physical properties and nomenclature of simple organic molecules, isomerism, chemical properties of alkanes and cycloalkanes, alkenes, alcohols, aldehydes and ketones, carboxylic acids and esters, amines and amides, carbohydrates, proteins, and lipids.
Practicals.

Introductory genetics 161 (GTS 161)

Module credits	8.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Veterinary Science
Prerequisites	MLB 111 GS
Contact time	fortnightly practicals, 2 lectures per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Genetics
Period of presentation	Semester 2

Module content

Chromosomes and cell division. Principles of Mendelian inheritance: locus and alleles, dominance interactions and epistasis. Probability studies. Sex determination and sex linked traits. Pedigree analysis. Extranuclear inheritance. Genetic linkage and chromosome mapping. Chromosome variation.

Molecular and cell biology 111 (MLB 111)

Module credits	16.00
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Health Sciences Faculty of Veterinary Science
Prerequisites	Refer to Regulation 1.2: A candidate who has passed Mathematics with at least 50% in the Grade 12 examination
Contact time	4 lectures per week, 1 practical per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Genetics
Period of presentation	Semester 1

Module content

Introductory study of the ultra structure, function and composition of representative cells and cell components. General principles of cell metabolism, molecular genetics, cell growth, cell division and differentiation.

Medical terminology 180 (MTL 180)

Module credits	12.00
Service modules	Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Afrikaans and English is used in one class
Academic organisation	Ancient Languages and Cultures
Period of presentation	Semester 1 and Semester 2

Module content

The acquisition of a basic medical orientated vocabulary compiled from Latin and Greek stem forms combined with prefixes and suffixes derived from those languages. The manner in which the meanings of medical terms can be determined by analysing the terms into their recognisable meaningful constituent parts, is taught and exercised. The functional use of medical terms in context as practical outcome of terminological application is continually attended to.

Physics for biology students 131 (PHY 131)

Module credits	16.00
Service modules	Faculty of Education Faculty of Health Sciences Faculty of Veterinary Science
Prerequisites	Refer to Regulation 1.2: A candidate must have passed Mathematics with at least 50% in the Grade 12 examination
Contact time	1 practical per week, 4 lectures per week, 1 discussion class per week
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Physics
Period of presentation	Semester 1

Module content

Units, vectors, one dimensional kinematics, dynamics, work, equilibrium, sound, liquids, heat, thermodynamic processes, electric potential and capacitance, direct current and alternating current, optics, modern physics, radio activity.

Animal diversity 161 (ZEN 161)

Module credits	8.00
Service modules	Faculty of Education Faculty of Veterinary Science
Prerequisites	MLB 111 GS or TDH

Contact time	2 lectures per week, fortnightly practicals
Language of tuition	Separate classes for Afrikaans and English
Academic organisation	Zoology and Entomology
Period of presentation	Semester 2

Module content

Animal classification, phylogeny, organization and terminology. Evolution of the various animal phyla, morphological characteristics and life cycles of parasitic and non-parasitic animals. Structure and function of reproductive, respiratory, excretory, circulatory and digestive systems.

Mathematics 165 (WTW 165)

Module credits	16.00
Prerequisites	At least 50% for Mathematics in the Grade 12 examination and MGW 112# or 08130005
Contact time	4 lectures per week, 1 tutorial per week
Language of tuition	Module is presented in English
Academic organisation	Mathematics and Applied Maths
Period of presentation	Semester 2

Module content

*Students will not be credited for more than one of the following modules for their degree: WTW 134, WTW 165, WTW 114, WTW 158. WTW 165 does not lead to Mathematics at 200 level and is intended for students who require Mathematics at 100 level only. WTW 165 is offered in English in the second semester only to students who have applied in the first semester of the current year for the approximately 65 MBChB, or the 5-6 BChD places becoming available in the second semester and who were therefore enrolled for MGW 112 in the first semester of the current year.

Functions, derivatives, interpretation of the derivative, rules of differentiation, applications of differentiation, integration, interpretation of the definite integral, applications of integration, matrices, solutions of systems of equations. All topics are studied in the context of applications.

Veterinary professional life 100 (VPL 100)

Module credits	2.00
Contact time	2 lectures every fortnight
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

Module content

The focus of the five-year programme on veterinary professional life is on professional and competency development. It also aims to contribute to the development of competencies to enable veterinarians to be consummate professionals capable of dealing with the diverse challenges of professional and everyday life. The VPL 100 module specifically aims to expose students to the diversity of opportunities and career paths in the veterinary profession. It also provides a holistic introduction to human-animal interaction from a veterinary perspective, emphasising the role of animal ethics and welfare in veterinary science.

Curriculum: Year 2

Minimum credits: 150

Core modules

Veterinary ethology and genetics 200 (VET 200)

Module credits	23.00
Prerequisites	No prerequisites.
Contact time	3 lectures per week, 4 times per year
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Year

Module content

The impact of genetics on function and management of key domestic species, husbandry of and common procedures performed on key domestic species, behavioural principles of key domestic species, handling skills for key domestic animals, aspects of animal welfare.

Animal science 210 (VKU 210)

Module credits	8.00
Service modules	Faculty of Veterinary Science
Contact time	2 lectures per week, 1 practical per week
Language of tuition	Module is presented in English
Academic organisation	Animal and Wildlife Sciences
Period of presentation	Semester 1

Module content

A brief perspective on the South African livestock industry. South African biomes in which animal production is practised. Animal ecological factors that influence regional classification. Introduction to adaptation physiology with reference to origin and domestication of farm and companion animals. Livestock species, breed development and breed characterisation. Basic principles of animal breeding and genetics, animal nutrition. Practical work includes identification and classification of different breeds of livestock.

Animal science 220 (VKU 220)

Module credits	8.00
Service modules	Faculty of Veterinary Science
Prerequisites	VKU 210 GS of TDH
Contact time	1 practical per week, 2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Animal and Wildlife Sciences

Period of presentation	Quarter 2

Module content

Introduction to the concepts of animal production systems in South African production environments. Principles and requirements for extensive, semi-intensive and intensive livestock production with reference to large- and small stock, poultry and pigs. Principles of communal farming systems in Southern Africa. Game management systems with reference to conservation and game farming. The role of the human in livestock production systems and sustainable production.

Animal science 222 (VKU 222)

Module credits	8.00
Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Animal and Wildlife Sciences
Period of presentation	Semester 2

Module content

The chemical composition of animal feedstuffs and fodder. Digestive processes and the digestibility of animal feed and fodder. Basic principles of the nutrition and nutritional requirements of companion animals and livestock. Basic composition of rations. Intensive and extensive feeding.

Veterinary comparative anatomy 200 (VCA 200)

Module credits	38.00
Prerequisites	No prerequisites.
Contact time	9 lectures per week over 14 weeks, Semester 2: 11 lectures per week over 14 weeks
Language of tuition	Module is presented in English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

Anatomical terminology, early embryonic development, central and autonomic nervous systems, cutaneous appendages and musculature, thoracic limb, pelvis, pelvic limb and the head of the major domestic species. Basic avian anatomy.

Veterinary physiology and histology 200 (VPH 200)

Module credits	33.00
Prerequisites	1st year Physics and Chemistry

Contact time	Semester 1: 8 lectures per week over 14 weeks, Semester 2: 9 lectures per week over 14 weeks
Language of tuition	Module is presented in English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Module content

The light microscope, structure and function of cells and tissues, the endocrine system, the nervous system, the integument, muscle structure and function, haematology, the cardiovascular system, the respiratory system, metabolic pathways and the digestive system, the urinary system, the reproductive system, basic avian physiology and thermoregulation.

Veterinary professional life 200 (VPL 200)

Module credits	7.00
Prerequisites	No prerequisites.
Contact time	9 lectures per week over 4 days
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

Module content

Information management, societal roles and responsibilities of veterinarians, cultural diversity and group skills, leadership, stress management.

Veterinary immunology 220 (VIM 220)

Module credits	6.00
Prerequisites	No prerequisites.
Contact time	6 lectures per day over 7 days, 1 seminar
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2

Module content

Overview of the immune system, structure of antibodies, biosynthesis of immunoglobulins, antigen-receptor interaction, complement, humoral immune response, cellular immune response, selected immunodiagnostic techniques, vaccinology , basic principles of immunity to infectious and parasitic diseases.

Veterinary microbiology 210 (VEM 210)

Module credits	6.00
Prerequisites	No prerequisites.

Contact time	8 discussion per day over 1 day, 2 lectures per day over 4 days, 2 discussion per day over 1 day
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1

Module content

General introduction to microbiology, bacteriology and mycoplasmology, pathogenesis of bacterial and mycoplasmal infections, rickettsiales and pathogenesis of infection, chlamydiales and pathogenesis of infection, general introduction to fungi and pathogenesis of infection, general introduction to viruses and pathogenesis of infection, laboratory diagnosis of infectious diseases, normal flora of selected organ systems in domestic animals.

Veterinary professional life 121 (VPL 121)

Module credits	2.00
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1

Module content

The focus of the five-year programme on veterinary professional life is on professional and competency development. It also aims to contribute to the development of competencies to enable veterinarians to be consummate professionals capable of dealing with the diverse challenges of professional and everyday life. The VPL 121 module specifically aims to expose students to the diversity of opportunities and career paths in the veterinary profession

Curriculum: Year 3

Minimum credits: 139

Core modules

General and organ pathology 300 (GOP 300)

Module credits	30.00
Prerequisites	No prerequisites.
Contact time	7 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

Definitions and common causes of basic lesions in tissues and organs. Pathogenesis of basic lesions including, reversible cell injury, pigmentations, necrosis, apoptosis, circulatory disturbances, inflammation, immunopathology, growth disturbances and neoplasia. Organ pathology (with the emphasis on macroscopic changes and pathogenesis) of the various organ systems of the body.

Veterinary toxicology 300 (TOX 300)

Module credits	14.00
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

General principles of veterinary toxicology, with emphasis on the relevant factors and circumstances contributing to poisoning; advanced toxicology with regard to inorganic and organic compounds, fungi, cyanobacteria, plants, rodenticides, zootoxins, etc. Plant poisonings, mycotoxicoses and inorganic and organic poisonings are discussed under the following headings: epidemiology and species affected, description, identification, distribution and poisonous principle (if applicable), mechanism of action, toxicity, clinical signs, pathology (limited to the most important lesions); diagnosis, differential diagnosis, treatment and control of prevention. A pressed plant collection or a poisonous plant collection in digital format has to be submitted.

Veterinary parasitology 300 (VTP 300)

Module credits	22.00
Prerequisites	No prerequisites.
Contact time	10 practicals, 4 lectures per week

Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

Module content

The objective of the module is to provide fundamentals of applied veterinary helminthology, ectoparasitology and protozoology as required by veterinarians. The module covers the life cycles, relevant morphological features, epidemiology and pathogenesis of important parasites of domestic animals. Candidates will also learn how to diagnose infections/infestations and diseases in life and dead animals as well as how to treat and control them. Where applicable, emphasis is also given on zoonotic implications.

General surgery 320 (GNS 320)

Module credits	7.00
Prerequisites	No prerequisites.
Contact time	3 lectures per week over 10 weeks, 2 practicals per semester
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 2

Module content

General principles of surgery, applicable to all species. Principles of surgical asepsis, disinfection and sterilisation, suture materials and patterns, surgical haemostasis, traumatology, wound healing, wound infection, wound management, small animal bandages and surgical instrumentation.

General veterinary pharmacology 300 (VPH 300)

Module credits	14.00
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

General principles of pharmaceuticals, pharmacokinetics, pharmacodynamics and pharmacotherapeutics. Regulatory control of veterinary medicines and dispensing requirements. A study of groups of functional, systemic and chemotherapeutic drugs uitilised in general veterinary practice with emphasis on their pharmacological effects, general indication, safety and side effects.

Introductory veterinary diagnostics 300 (IVD 300)

Module credits	24.00
Prerequisites	No prerequisites.

Contact time	3 lectures per week, 6 practicals per semester
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Year

Module content

Diagnostic focus: Introduction to common diagnostic procedures used in key domestic animals including clinical examination, clinical pathology, pain assessment and sedation in relation to clinical examination, basic epidemiological concepts, basic diagnostic imaging modalities and radiation safety.

Clinical physiology focus: The aim is to explain the pathophysiology of commonly occurring clinical conditions and the attempts by the body to re-establish homeostasis. This section of IVD 300 relies heavily on the VPH 200 module for its foundation.

Veterinary research focus: IVD 300 also include a section on the role of research in veterinary science, literature reviews, research design, the role of laboratory animals in veterinary research and examples of research.

Veterinary infectious diseases 300 (VIP 300)

Module credits	14.00
Prerequisites	No prerequisites.
Contact time	3 discussion classes per week over 5 weeks, 3 lectures per week over 23 weeks
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

Module content

Veterinary infectious diseases is a module aimed at providing the student with in-depth knowledge of all aspects of diseases of food-producing and companion animals caused by viruses, bacteria, fungi and prions. The module is structured to enable students to discern which infectious diseases of animals are high impact diseases and which are of lesser significance in order of importance. The module covers the morphological and physico-chemical characteristics of the causative organisms and the epidemiology and pathogenesis of the diseases caused by them. Course candidates will also learn how to diagnose these diseases in both the living and dead animal, and the control strategies applicable, including control at the livestock/wildlife/human interface. Finally, course candidates will learn about the socio-economic importance of infectious diseases of animals with special reference to transboundary spread.

Veterinary professional life 300 (VPL 300)

Module credits	10.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week over 7 weeks, 2 lectures per week over 28 weeks
Language of tuition	Module is presented in English

Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

Module content

This module continues with aspects of leadership and diverse personality types and builds on the framework presented earlier in the modules VPL 120 and VPL 200. The aim is to evaluate personal growth during the preceding two years and formulate personal goals for the next two years. Emotional intelligence (EQ) is included in the module and deals with the core skills of self-awareness, self-management, social awareness and relationship management. The module also deals with communication-, conflict management- and negotiation skills with particular reference to the veterinary profession. The module is concluded with basic concepts of financial skills (personal financial fitness), e.g. budgeting (personal and organisational), balance sheets and financial statements (basic understanding) as a precursor to the teaching of more detailed business management principles in the module VPL 510.

Curriculum: Year 4

Minimum credits: 150

Core modules

Anaesthesiology 420 (ANV 420)

Module credits	8.00
Prerequisites	No prerequisites.
Contact time	3 lectures per week over 23 weeks, 1 practical per semester
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 2

Module content

Prepare for safe general anaesthesia; premedication; trachea intubation; induction and maintenance of intravenous and inhalation anaesthesia; recovery from anaesthesia; local anaesthesia and pain management; anaesthetic complications.

Clinical pathology 410 (CLP 410)

Module credits	7.00
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 1

Module content

Diagnosis and treatment of anaemia, polycythemia, leukocyte kinetics, lymphohaemopoietic neoplasia; diagnosis and treatment of haemostatic abnormalities; diagnostic use of serum biochemistry, faecal and blood tests, urinalysis; cytology.

Diagnostic imaging 400 (DIM 400)

Module credits	17.00
Prerequisites	No prerequisites.
Contact time	9 practicals per year, 3 lectures per week over 14 weeks, 2 lectures per week over 14 weeks
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Principles of diagnostic imaging; diagnostic imaging of the abdomen, thorax, head, appendicular system and the vertebral column in dogs and cats; diagnostic imaging of the appendicular system in horses and production animals.

Diagnostic pathology 400 (DPT 400)

Module credits	16.00
Prerequisites	No prerequisites.
Contact time	1 practical per week, 2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

Module content

Planning and conducting necropsies; diagnostic approach to the fatal conditions and diseases of dogs, cats, pigs, poultry and horses.

Equine medicine and surgery 410 (EQM 410)

Module credits	14.00
Prerequisites	No prerequisites.
Contact time	7 lectures per week, 1 practical per semester
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 1

Module content

Lameness: disorders of the front and hind limb; disorders of the spine; fractures and emergencies; muscular disorders; insurance examinations; identification, diagnosis and treatment of important cardiovascular, gastrointestinal, nervous system, urinary, skin, multi-systemic and respiratory disorders/diseases; hydration status and correction of fluid imbalances; the equine neonate: clinical examination, diagnostic tests and selected disorders.

Porcine health and production 420 (PHP 420)

Module credits	5.00
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Semester 2

Module content

The pig industry; breeding and husbandry; nutrition and related disorders; important diseases; biosecurity; misceallaneous conditions.

Small animal medicine and surgery 400 (SAS 400)

Module credits	50.00
Prerequisites	No prerequisites.
Contact time	Semester 2: 9 lectures per week over 14 weeks, 5 practical per year, Semester 1: 13 lectures per week over 14 weeks
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

Module content

Patient assessment; therapeutic and monitoring plans for selected key critical situations; identification, diagnosis and treatment of important cardiovascular, respiratory, gastrointestinal, liver, pancreas, peritoneal, kidney, urogenital, skin, endocrine, musculoskeletal, nervous system and eye conditions/diseases; multi-systemic conditions; dentistry; oncology; behaviour-related disorders and treatment, critical care and traumatology in dogs and cats; selected aspects of the handling, housing, nutrition, husbandry and diseases of cage birds, reptiles, small mammals, rabbits and chinchillas.

Veterinary professional life 400 (VPL 400)

Module credits	11.00
Prerequisites	No prerequisites.
Contact time	2 lectures per week over 28 weeks
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

Module content

The veterinarian in context: political roles and responsibilities; collegiality and professional associations; veterinary law and ethics; stressors and stress management.

Veterinary reproduction 400 (VRP 400)

Module credits	17.00
Prerequisites	No prerequisites.
Contact time	4 lectures per week, 2 practicals over 10 weeks
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Year

Module content

The female reproductive cycle; parturition and puerperium; control of reproduction; identification, diagnosis and treatment of important diseases or malfunctions of the female reproductive system; identification, diagnosis and treatment of conditions of the neonate; male reproductive processes; identification, diagnosis and treatment of important diseases or malfunctions of the male reproductive system; venereal diseases in domestic animals; optimisation of breeding; investigation of infertility; the Animal Improvement Act.

Poultry health and production 420 (PLY 420)

Module credits	5.00
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Semester 2

Module content

The poultry industry; breeding and husbandry; nutrition and related disorders; important diseases; biosecurity; miscellaneous conditions; zoonosis.

Curriculum: Year 5

Minimum credits: 181

Core modules

Bovine health and production 510 (BHP 510)

Module credits	25.00
Contact time	9 lectures per week, 3 practicals per week
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Semester 1

Module content

The pathophysiology, diagnosis, prognosis, treatment and control of diseases in cattle. Aspects of clinical veterinary science, including components of clinical diagnosis, therapeutics, medicine, surgery and introductory herd health.

Veterinary epidemiology 510 (EPL 510)

Module credits	10.00
Contact time	3 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Semester 1

Module content

Topics presented within an evidence-based medicine and clinical decision making framework: basic concepts of epidemiology and disease transmission, measures of disease in populations, precision and bias, causal inference, measures of association, epidemiological study design, sampling methods, disease outbreak investigation, principles of diagnostic tests.

Small stock health and production 510 (SSH 510)

Module credits	25.00
Contact time	6 lectures per week, 1 other contact session per week
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Semester 1

Module content

An encompassing approach including case studies, peer instruction and practical group work will enable the student to acquire, understand and apply knowledge regarding small stock production systems. Nutrition, parasite management, disease management, technology and economics will be dealt with.

Veterinary business management 510 (VPL 510)

Module credits	10.00
Contact time	9 other contact sessions, 3 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1

Module content

This module will deal with business management including basic financial reporting and development of a business plan. Marketing, promotion and sales will be studied in terms of marketing oneself and one's business. Human resources management will be approached from the perspective of staff recruitment and retention, work place discipline, as well as recognition and rewards for good work performance and application of the Labour Law in the work place. The module will be concluded with strategic client service and management that will focus on client satisfaction and dissatisfaction, approaches to deal with different categories of clients and compassion fatigue and its components.

One health 510 (VOH 510)

Module credits	7.00
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1

Module content

Introduction to the One Health concept; emerging and endemic infectious diseases at human/animal interfaces; veterinary issues at human/wildlife interfaces in southern Africa; One Health approaches at human/animal/ecosystem interfaces; animal health, conservation and rural development at interfaces in southern Africa; communication and collaboration between multiple disciplines.

Veterinary public health 510 (VPH 510)

Module credits	14.00
Contact time	6 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Paraclinical Sciences
Period of presentation	Semester 1

Module content

The role of the veterinary surgeon in veterinary public health. Veterinary food hygiene and nutrition-related diseases of importance regarding food of animal origin. Meat and milk hygiene; all necessary measures, including legislation, to ensure that food of animal origin is safe, sound and wholesome at all stages of production and manufacture, up to the consumer. Veterinary aspects of environmental health. Zoonoses in veterinary science. Introduction of the use of laboratory animals in biomedical research and relevant aspects relating to animal welfare. Introduction to the social aspects of the human-animal interaction by protecting and promoting human health in communities, veterinary extension and risk communication.

Diagnostic pathology 510 (DPT 510)

Module credits	9.00
Contact time	2 lectures per week, 1 practical per week
Language of tuition	Module is presented in English
Academic organisation	Paraclinical Sciences
Period of presentation	Semester 1

Module content

Planning and conducting necropsies; diagnostic approach to fatal conditions and diseases of small stock and cattle.

Veterinary core practice 601 (VCP 601)

Module credits	53.00
Prerequisites	All modules up to and including the 9th semester of the BVSc curriculum.
Contact time	40 hours per week, Yes
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Semester 2

Module content

Practical application of the theoretical aspects of small animal, production animal, equine and state veterinary practice covered in the core curriculum of the BVSc programme. Topics include medicine, surgery, reproduction, diagnostic imaging, pathology and clinical pathology, ophthalmology, dentistry and anaesthesiology of cats, dogs, cattle, small stock and horses, herd/flock health, epidemiology, economics, drug regulations, certification, animal health- and import/export regulations, veterinary public health, veterinary business management and veterinary professional life skills. The emphasis of practical exposure will be on attaining of the Day One Competencies for graduating veterinary professionals.

Veterinary elective practice 601 (VEP 601)

Module credits	28.00
Contact time	Yes

Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 2

Module content

The purpose of this module is to give students additional exposure in a practice area of interest. The aim is to provide the graduate with theoretical and practical exposure to strengthen Day 1 competencies in those components of veterinary science needed for him/her to enter the particular career path with confidence. The scope of the module is expansion, integration and practical application of knowledge established through the core component of the BVSc programme. Students will complete one of the following six practice areas: Small Animal and Exotic Practice, Rural and Wildlife Practice, Veterinary Public Health and State Veterinary Practice, Equine Practice, Intensive Animal Production Practice, and Veterinary Research Career.

Curriculum: Final year

Minimum credits: 159

Core modules

Veterinary core practice 602 (VCP 602)

Module credits	53.00
Prerequisites	All modules up to and including the 9th semester of the BVSc curriculum.
Contact time	Yes, 40 hours per week
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Semester 1

Module content

Practical application of the theoretical aspects of small animal, production animal, equine and state veterinary practice covered in the core curriculum of the BVSc programme. Topics include medicine, surgery, reproduction, diagnostic imaging, pathology and clinical pathology, ophthalmology, dentistry and anaesthesiology of cats, dogs, cattle, small stock and horses, herd/flock health, epidemiology, economics, drug regulations, certification, animal health- and import/export regulations, veterinary public health, veterinary business management and veterinary professional life skills. The emphasis of practical exposure will be on attaining of the Day One Competencies for graduating veterinary professionals.

Veterinary core practice 603 (VCP 603)

Module credits	54.00
Prerequisites	All modules up to and including the 9th semester of the BVSc curriculum.
Contact time	Yes, 40 hours per week
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Semester 2

Module content

Practical application of the theoretical aspects of small animal, production animal, equine and state veterinary practice covered in the core curriculum of the BVSc programme. Topics include medicine, surgery, reproduction, diagnostic imaging, pathology and clinical pathology, ophthalmology, dentistry and anaesthesiology of cats, dogs, cattle, small stock and horses, herd/flock health, epidemiology, economics, drug regulations, certification, animal health- and import/export regulations, veterinary public health, veterinary business management and veterinary professional life skills. The emphasis of practical exposure will be on attaining of the Day One Competencies for graduating veterinary professionals.

Veterinary elective practice 602 (VEP 602)

Module credits	28.00
Contact time	Yes
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 1

Module content

The purpose of this module is to give students additional exposure in a practice area of interest. The aim is to provide the graduate with theoretical and practical exposure to strengthen Day 1 competencies in those components of veterinary science needed for him/her to enter the particular career path with confidence. The scope of the module is expansion, integration and practical application of knowledge established through the core component of the BVSc programme. Students will complete one of the following six practice areas: Small Animal and Exotic Practice, Rural and Wildlife Practice, Veterinary Public Health and State Veterinary Practice, Equine Practice, Intensive Animal Production Practice, and Veterinary Research Career.

Veterinary elective practice 603 (VEP 603)

Module credits	24.00
Contact time	Yes
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 2

Module content

The purpose of this module is to give students additional exposure in a practice area of interest. The aim is to provide the graduate with theoretical and practical exposure to strengthen Day 1 competencies in those components of veterinary science needed for him/her to enter the particular career path with confidence. The scope of the module is expansion, integration and practical application of knowledge established through the core component of the BVSc programme. Students will complete one of the following six practice areas: Small Animal and Exotic Practice, Rural and Wildlife Practice, Veterinary Public Health and State Veterinary Practice, Equine Practice, Intensive Animal Production Practice, and Veterinary Research Career.