

**FACULTIES OF THE UNIVERSITY
OF PRETORIA**

HUMANITIES
NATURAL AND AGRICULTURAL SCIENCES
LAW
THEOLOGY
ECONOMIC AND MANAGEMENT SCIENCES
VETERINARY SCIENCE
EDUCATION
HEALTH SCIENCES
ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

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**FACULTY OF VETERINARY SCIENCE
ACADEMIC PERSONNEL AS ON 30 SEPTEMBER 2014**

DEAN

Prof. D.A. Abernethy, BVSc(Pretoria) MSc(Belfast) PhD(London)

DIRECTOR: TEACHING AND LEARNING

Prof. L van Ryneveld, BEd(NFL) MEd(CBE) PhD(CBE)(Pretoria)

**DEPUTY DEAN: RESEARCH, POSTGRADUATE STUDIES AND
INTERNATIONALISATION**

Prof. J.A.W. Coetzer, BVSc(Hons) MMedVet(Path)(Pretoria)

DIRECTOR OF CLINICAL SERVICES

Dr. C. H. Annandale, BCom BVSc(Hons) MMedVet(Gyn)(Pretoria) MBA(GIBS) DipACT

Department of Anatomy and Physiology

Groenewald, H.B., BVSc PhD(Pretoria).....	Professor (Head)
Booth, K.K., BSc(Youngstown State University) MSc.....	Professor
PhD(Iowa State University)	
Ganswindt, A., Eng(Biotech)(Berlin DE) PhD(Biology)(Münster)	Professor
Madekurozwa, M.N., BVSc(Zimbabwe) PhD(Glasgow)	Professor
Soley, J.T., BA(Hons)(Unisa) MSc(Witwatersrand) PhD(Pretoria)	Professor
Meintjes, R.A., BSc(Witwatersrand) BVSc(Hons) PhD(Pretoria)	Associate Professor
Van der Merwe, N.J., BVSc DVSc(Pretoria)	Associate Professor
Chamunorwa, J P., BSc(Hons) BVSc(Zimbabwe) PhD(Liverpool).....	Senior Lecturer
PGCHE(Pretoria)	
Cornelius, S.T., BSc(Hons)(Witwatersrand) BVMCh(Medunsa)	Senior Lecturer
BVSc(Hons)(Pretoria) SEP(Witwatersrand/Harvard)	
Crole, M.R., BVSc(Hons) MSc(Vet Science) PGCHE PhD(Pretoria)	Senior Lecturer
Hornsveld, M., BVSc PhD(Pretoria)	Senior Lecturer
Mabeta, P.L., MSc PhD(Pretoria)	Senior Lecturer

Department of Companion Animal Clinical Studies

Schoeman, J.P., BVSc MMedVet(Med)(Pretoria) PhD(Cambridge).....	Professor (Head)
DSAM(RCVS-London) CertEntrepStud(Cantab) DipECVIM-CA	
Kirberger, R.M., BVSc MMedVet(Rad) DVSc DTO(Pretoria) DipECVIM-CA	Professor
Leisewitz, A.L., BVSc(Hons) MMedVet(Med)(Pretoria).....	Professor
PhD(Open, UK) DipECVIM-CA	
Morley, P.S., DVM(Washington State) PhD(Saskatchewan) DipACVIM	Extraordinary Professor
Carstens, A., BVSc MMedVet(Surg) MMedVet(DiagIm)	Associate Professor
MS(TexasA&M) PhD DTO(Pretoria) DipECVIM-CA	
Coetzee, G.L., BVSc(Hons) MMedVet(Chir)(Pretoria)	Associate Professor
Dzikiti, T.B., BVSc(Zimbabwe) MSc(Vet Anaes)(Utrecht)	Associate Professor
PhD(Pretoria)	
Goddard, A., BVSc(Hons) MMedVet(ClinLabDiag)(Pretoria).....	Associate Professor
Stegmann, G.F., BVSc(Hons) MMedVet(Anaes)	Associate Professor
DTO(Pretoria) DipECVIM-CA	
Bester, L., BVSc MMedVet(Anaes) DTO(Pretoria)	Senior Lecturer
Hooijberg, E., BVSc(Pretoria) DipECVIM-CA	Senior Lecturer
Burchell, R.K. BSc(Rhodes) BVSc(Hons) MMedVet(Med)(Pretoria).....	Senior Lecturer
Goodhead, A.D., BSc (Pietermaritzburg) BVSc.....	Senior Lecturer
MMedVet(Ophth)(Pretoria)	

Hartman, M.J., BVSc(Hons) MSc MMedVet(Surg)(Pretoria).....	Senior Lecturer
Hooijberg, E., BVSc(Pretoria) DipECVCP	Senior Lecturer
Lyle, C., BVM&S S MSc(Edinburgh) DipECEIM	Senior Lecturer
Mahne, A., BVSc(Hons) MMedVet(EqSurg)(Pretoria)	Senior Lecturer
Marais, H.J., BVSc(Hons) MSc(Vet Science)(Pretoria).....	Senior Lecturer
McClure, V., BVSc BVSc(Hons) MMedVet(Med)(Pretoria)	Senior Lecturer
Mukorera, V., BVSc(Zimbabwe) MMedVet(Med)(Pretoria)	Senior Lecturer
Nevill, B., BVSc, MMedVet(Surg)(Pretoria)	Senior Lecturer
Page, P.C., BVSc(Hons) MMedVet(Med)(Eq)(Pretoria).....	Senior Lecturer
Pazzi, P., BVSc(Hons) MMedVet(Med)(Pretoria)	Senior Lecturer
Scheepers, E., BSc(Hons) BVSc(Hons) MSc(Vet Science)(Pretoria) ...	Senior Lecturer
Steenkamp, G., BSc BVSc MSc(Zoology)(Pretoria)	Senior Lecturer
Van Schoor, M., BVSc(Hons) MMedVet(Med)(Pretoria)	Senior Lecturer
Van Staden, S.L., BVSc(Hons) MMedVet(Rad)(Pretoria) DipECVDI...	Senior Lecturer
Venter, I.J., BVSc MMedVet(Ophth)(Pretoria)	Senior Lecturer
Zeiler, G.E., BVSc(Hons) MMedVet(Anaes)(Pretoria)	Senior Lecturer
Boucher, C., BVSc(Pretoria) Cert SA Surgery(ECAVS).....	Lecturer
Hartman, M.J., BVSc(Hons) MSc(Pretoria)	Lecturer
Kafka, U., BVSc(Hons)(Pretoria).....	Lecturer
McClure, V., BVSc BVSc(Hons) MMedVet(Med)(Pretoria)	Lecturer
Sonntag, Q., BVSc(Hons)(Pretoria) PGCHE(Pretoria)	Lecturer
Van Vollenhoven, E., BVSc LLB(Pretoria)	Lecturer
Venter, F.J., MSc(Agric)(UOFS) BVSc(Pretoria) MBA(Pretoria)	Lecturer
Zeiler, G.E., BVSc(Hons)(Pretoria).....	Lecturer
Tordiffe, A., BVSc MSc(Zoology)(Pretoria)	Extraordinary Lecturer

Department of Paraclinical Sciences

Botha, C.J., BVSc(Hons) MMedVet(Tox)(Pretoria) PhD(NSVS)(Oslo) .	Professor (Head)
Eloff, J.N., BSc(Hons)(Botany) MSc(Chemistry).....	Professor
DSc(Plant Biochemistry)(Potchefstroom)	
Naidoo, V., BVMCh(Medunsa) MSc PhD(Pretoria).....	Professor
Prozesky, L., BVSc MMedVet(Path) PhD(Pretoria)	Professor
Kriek, N.P.J., BVSc MMedVet(Path)(Pretoria)	Emeritus Professor
Guillette, L.J., BS(New Mexico) MA PhD(Colorado)	Extraordinary Professor
Lawrence, J.A., BSc DTVM(Edinburg) DPhil(Rhodesia).....	Extraordinary Professor
Meissner, H.H., BSc(Hons) MSc(Stellenbosch) PhD(Port Elizabeth)....	Extraordinary Professor
Duncan, N.M., BVSc(Hons)(Pretoria) MMedVet(Aves)(Medunsa)	Associate Professor
DipACVP	
McGaw, L.J., BSc(Hons) PhD(KwaZulu-Natal).....	Associate Professor
Williams, M.C., BVSc MMedVet(Path)(Pretoria)	Associate Professor
Botha, F., BSc(Hons) MSc(Potchefstroom) PhD(Pretoria).....	Senior Lecturer
Cliff, S.J., BVSc MSc(Vet Science)(Pretoria).....	Senior Lecturer
Karama, M., DMV(Lubumbashi) MMedVet(VPH)Pretoria PhD(Guelph)	Senior Lecturer
Myburgh, J.G., Dip Pasture Management BVSc(Hons)(Pretoria)	Senior Lecturer
MMedVet(Med)(Medunsa)	
Steyl, J.C.A., BVSc MSc(Vet Science)(Pretoria)	Senior Lecturer
Le Roux-Pullen, L., BVSc(Pretoria)	Lecturer
Odendaal, L., BVSc(Hons) MSc(Pretoria)	Lecturer
Qekwana D.N., BVSc MMedVet(VPH)(Pretoria).....	Lecturer
Elgorashi, E.E., BSc(Agric)(Khartoum) MSc(MACh)(Crete).....	Extraordinary Lecturer
PhD(Natal)	
Fuller, A., BSc BSc(Hon) PhD(Wits).....	Extraordinary Lecturer

Govender, D., BVSc MSc(VTD)(Pretoria).....	Extraordinary Lecturer
Hofmeyer, M.S., BVSc(Pretoria)	Extraordinary Lecturer
Huchzermeyer, K.D.A., BVSc, MSc(Stirling) PhD(Pretoria)	Extraordinary Lecturer
Joubert, K.E., BVSc(Hons) MMedVet(Anaes)(Pretoria).....	Extraordinary Lecturer
Ntshabele, B.R., BVMCh(Medunsa) MBA(Uniwest)	Extraordinary Lecturer
Oberholster, P.J., BSc BA MEM MSc(UOFS) PhD(Pretoria)	Extraordinary Lecturer
Odoi, A., BVM (Uganda) MSc (Kenya) PhD (Canada)	Extraordinary Lecturer
Sithole, F. BVSc(Zimbabwe)MSc(Netherlands), PhD(Canada).....	Extraordinary Lecturer
DACVPM(Canada)	

Department of Production Animal Studies

Irons, P.C., BVSc(Pretoria) Dipl Am Coll Therio	Professor (Head)
MMedVet (Gyn)(Pretoria) PhD(Utrecht)	
Fosgate, G.T., BSc(Animal Science) DVM(Cornell) PhD(California).....	Professor
DipACVPM	
Nöthling, J.O., BVSc MMedVet(Gyn) MBA(Pretoria) PhD(Utrecht).....	Professor
Thompson, P.N., BVSc MMedVet(Med)(Pretoria) PhD(Utrecht).....	Professor
Bath, G.F., BVSc(Pretoria).....	Emeritus Professor
Bertschinger, H.J., BVSc(Pretoria) Dr MedVet(Zürich) PhD(Utrecht)....	Emeritus Professor
Diplomate European College of Animal Reproduction	
Lourens, D.C., BVSc MMedVet(Med)(Pretoria)	Emeritus Professor
Rautenbach, G.H., BVSc(Hons) MMedVet(Med)(Pretoria)	Emeritus Professor
Gummow, B., BVSc(Hons) MMedVet(Pharm)(Pretoria) PhD(Utrecht) ..	Extraordinary Professor
Stout, T.A.E., MA VetMB PhD MRCVS Dip ECAR KNMvD	Extraordinary Professor
Terblanche, S.J., BVSc MMedVet(Gyn)(Pretoria) Dipt DTE(Pretoria)...	Extraordinary Professor
Van Leengoed, L., PhD(Utrecht)	Extraordinary Professor
Abolnik, C., BSc BSc(Hons) MSc PhD(Pretoria)	Associate Professor
Petty, K.P., BSc(Hons)(Witwatersrand) BVSc(Pretoria).....	Associate Professor
Schulman, M.L., BSc(Witwatersrand) BVSc(Hons)	Associate Professor
MMedVet(Gyn)(Pretoria)	
Shakespeare, A.S., BSc(Eng)(Natal) BVSc(Hons)	Associate Professor
MMedVet(Med)(Pretoria)	
Thompson, P.N., BVSc MMedVet(Med)(Pretoria) PhD(Utrecht).....	Associate Professor
Annandale, C.H., BCom BVSc(Hons) MMedVet (Gyn)(Pretoria)	Senior Lecturer
MBA(GIBS) DipACT	
Blignaut, D.J.C., BVSc(Pretoria)	Senior Lecturer
Botha, A.E., Dip Cur Anim THED(Pretoria) MSc(Pretoria).....	Senior Lecturer
Fasina, F.O., DVM(Ib) MSc(Pretoria) PhD(Pretoria).....	Senior Lecturer
Harmse, J.G., BVSc(Pretoria)	Senior Lecturer
Heise, A., VetMed(Leipzig) Dr MedVet(Zurich) MSc(Pretoria) DipACT ..	Senior Lecturer
Holm, D.E., BVSc MSc(Vet Science)(Pretoria) PhD(Pretoria)	Senior Lecturer
Kock, M.D., BVSc(Univ London) MSc in Preventive Medicine	Senior Lecturer
(Univ California)	
Leask, R., BSc(Agric)(Natal) BVSc(Pretoria) MMedVet(CaprOv)	Senior Lecturer
Moerane, R., BVMCh(Medunsa)	Senior Lecturer
Moerane, R., BVMCh(Medunsa) MSc (Vet Sci)(Pretoria)	Senior Lecturer
Petzer, I.M., BVSc MSc(Vet Science)(Pretoria).....	Senior Lecturer
Smith, P.W., BVSc(Pretoria)	Senior Lecturer
Van der Leek, M.L., BVSc(Pretoria) MS(Florida).....	Senior Lecturer
Wandrag, D.B.R., BVSc(Hons) MMedVet PhD(Pretoria)	Senior Lecturer
Brown, G., BVSc(Pretoria)	Lecturer
De Haast, A.R., BVSc(Pretoria) BPharm(Potchefstroom).....	Lecturer

Esposito, G., DVM PhD(Napoli Federico II).....	Lecturer
May, C.E., BVSc(Pretoria)MMedVet(Gyn)(Pretoria).....	Lecturer
Pfizer, S., MedVet DrMedVet(Munich), MSc(Vet Science)(Pretoria)....	Lecturer
Tshuma, T., BVSc(Zimbabwe) MMedVet(Bov)	Lecturer
Bischopp, S.P.R., BVSc(Hons) MSc(VetSci)(Pretoria)	Extraordinary Lecturer
Buss, P.E., BVSc MMedVet(Pharm)(Pretoria).....	Extraordinary Lecturer
Gerber, D., VetMed(Zurich) MMedVet(Gyn)(Pretoria)	Extraordinary Lecturer
Harper, C.K., BVSc(Pretoria) MSc(Pretoria).....	Extraordinary Lecturer
Lesosky, M., PhD(Guelph, Canada).....	Extraordinary Lecturer
Mitchell, G., BSc(Wits) BVSc(Pretoria) PhD(Wits) DVSc(Pretoria)	Extraordinary Lecturer
Steckler, D., VetMed(Zürich) MSc (Vet Sci)(Pretoria) DipACT.....	Extraordinary Lecturer
Taylor, W. A., MSc (Zoology) PhD (Pretoria).....	Extraordinary Lecturer

Department of Veterinary Tropical Diseases

Vacant	Professor (Acting Head)
Michel, A.L., DVM Dr.med.vet.(Munich) PhD(Utrecht)	Professor
Neves, L.C. BVSc(Univ Eduardo Mondlane, Mozambique) MVSv(Univ Liverpool, UK) PhD(Univ Liverpool, UK)	Professor
Venter, E.H., BSc(Hons) MSc(Free State) PhD(Pretoria)	Professor
Penzhorn, B.L., BVSc BSc(Hons)(Pretoria) MAgric(Texas A&M)	Emeritus Professor & Senior Research Fellow
DSc(Wildlife Management)(Pretoria) Dip EVPC.....	
Van Vuuren, M., BVSc MMedVet(Micro)(Pretoria).....	Emeritus Professor
Godfroid, J.X.L., DVM(Liège) MSc(Brussels) PhD(Namur).....	Extraordinary Professor
Horak, I.G., BVSc DVSc(Pretoria) PhD(Natal) DSc(Free State)	Extraordinary Professor
Jongejan, F., BSc(Biol)(Amsterdam) MSc(Med Biol)	Extraordinary Professor
PhD(Vet Micro)(Utrecht)	
MacLachlan, N.J., BVSc(Massey University, New Zealand)	Extraordinary Professor
MS(Missouri) PhD(California) DipACVP	
Majiwa, P.A.O., BS(Jarvis) MS(University of Texas, Dallas).....	Extraordinary Professor
PhD(Brussels)	
Marcotty, T., DVM PhD(Liège)	Extraordinary Professor
Penrith, M-L., BSc(Hons)(Zool) PhD(Cape Town)	Extraordinary Professor
BVSc(Hons) DSc(Pretoria)	
Rutten, V.P.M.G., BSc MSc(MedBio/Hons) PhD(Immunol)(Utrecht).....	Extraordinary Professor
Thomson, G.R., BVSc(Pretoria) MSc(Birmingham) PhD(London).....	Extraordinary Professor
Oosthuizen, M.C., BSc(Agric) BSc(Agric)(Hons) MSc PhD(Pretoria)....	Associate Professor
Crafford, J.E., BVSc MSc(Vet Science) PhD(Pretoria)	Senior Lecturer
Quan, M., BVSc MSc(Pretoria) PhD(Edinburgh)	Senior Lecturer
Schwan, E.V., VetMed(Hannover) MVSc(Appl Parasitology)(Liverpool).....	Senior Lecturer
Dr med.vet(Hannover) PhD(Pretoria) CertIAVH	
Sibeko-Matjila, K., BSc(Hons) MSc(Biotech)(Limpopo) PhD(Pretoria)..	Senior Lecturer
Stoltz, W.H., BVSc(Pretoria) MSc(Vet Science)(Pretoria).....	Senior Lecturer
Van Heerden, H., BSc(Biol) BSc(Hons) MSc(Free State).....	Senior Lecturer
PhD(Pretoria)	
Morar-Leather, D., BSc(Hons)(Microbiology) MSc(Vet Science) PhD(Pretoria)	Lecturer
Van Rooyen J., BSc(Agric)Animal.Sci BSc(Hons)Wildlife.....	Lecturer
Management MSc(Agric)Animal Sci(Pretoria)	
Fehrsen, J., BSc(Hons)(Cape Town) MSc(Witwatersrand).....	Extraordinary Lecturer
PhD(Rhodes)	
Koekemoer, J.J.O., MSc PhD(Potchefstroom)	Extraordinary Lecturer
Madder, M., BSc(Biol)(Antwerp) MSc(Biotechnology) PhD(Ghent).....	Extraordinary Lecturer

Mans, B.J., BSc(Hons) MSc PhD(Pretoria)	Extraordinary Lecturer
Matjila, P.T., BSc(Medunsa) MSc(Vet Science)	Extraordinary Lecturer
PhD(Pretoria)	
Pretorius, A., BSc(Hons) MSc PhD(Pretoria).....	Extraordinary Lecturer
Sabeta, C., BSc(Hons) MPhil(UZ, Harare) PhD(Pretoria).....	Extraordinary Lecturer
Van Kleef, M., BSc(Hons) MSc(Pretoria) PhD(Rhodes)	Extraordinary Lecturer
Van Wyk, J.A., BVSc(Pretoria).....	Extraordinary Lecturer
Venter, G.J., BSc(Hons)(Free State) MSc(Free State) PhD(Free State)	Extraordinary Lecturer
Wallace, D.B., BSc(Hons) MSc(Cape Town) PhD(Pretoria)	Extraordinary Lecturer
Zweygarth, E.P., Dr.med.vet.(Berlin) PhD(Utrecht)	Extraordinary Lecturer
Collins, N.E., BSc(Hons) PhD(Witwatersrand)	Senior Researcher

Equine Research Centre

Director: Guthrie, A.J., BVSc(Hons) MMedVet(Phys)(Pretoria) Professor
 PhD(Louisiana State)

Centre for Veterinary Wildlife Studies

Director: Centre for Veterinary Wildlife Studies:

Burroughs, R.E.J., BVSc(Pretoria) Senior Lecturer

Student Administration

Vhengani, M.J., BA(Admin)(Hons)(Venda) Head

GENERAL INFORMATION

Admission

Any person who wishes to register at the University for the first time, or after an interruption of studies, should apply or reapply for admission. Application for admission to all undergraduate programmes in the Faculty closes on 31 May. For information on application for postgraduate programmes: Consult the relevant head of department.

BVSc degree programme

The BVSc degree programme has been reviewed and a new core-elective single degree structure has been developed. The first year of study of the new six-year programme commenced in 2011. The first year of the new programme will be presented at the Hatfield Campus of the University and the remainder at the Onderstepoort Campus from 2012 onwards. The majority of students will be selected for admission to the first year of study. A small number will also be selected for admission to the second year of study provided they have completed the necessary first-year modules.

Intake into the BSc (Veterinary Biology) programme was terminated in 2010 and delivered its last graduates at the end of 2011. These students were the last ones to progress to the first year of the four-year BVSc programme in 2012. They are due to graduate at the end of 2015. This programme will be phased out over time as the new programme is implemented.

University Diploma in Veterinary Nursing

A limited number of students will be admitted to the first year of the programme which is presented, together with the second year of study, at the Onderstepoort Campus.

Statement of symbols

When registering at this University for the first time, a candidate has to submit a record of symbols obtained for each subject in the Grade 12 examination.

National Senior Certificate (NSC)

All undergraduate students who register at the University of Pretoria for the first time, must show their original National Senior Certificate at the Student Administration section of their faculty before the end of August.

Language of tuition

In conducting its business, the University uses two official languages, namely English and Afrikaans. In formal education the language of tuition is either English or Afrikaans, or both of these languages; provided that there is a demand and that it is academically and economically justifiable. However, it remains the student's responsibility to ascertain on an annual basis in which language a module and any further level of that module is presented. In respect of administrative and other services, a student has the right to choose whether the University should communicate with him or her in English or Afrikaans. Where the University has the capacity, Sepedi is used as an additional language of communication.

Bursaries and loans

Particulars of bursaries and loans are available on request.

Residence accommodation

Allocation of accommodation in the residence at Onderstepoort will only be confirmed after admission to the BVSc degree programme or DipVetNurs diploma programme. Details

concerning accommodation fees are available on request. Due to the high demand for accommodation in the Onderstepoort residence, preference will be given to BVSc students from the second year of study onwards as well as first-year diploma students.

Application for accommodation in the Onderstepoort residence should be submitted as part of the application form for admission as from 1 April of the preceding year. A number of places will be reserved for students in the first year of the BVSc degree programme who are already using residence accommodation at the Hatfield campus.

Academic Orientation Programme

This programme is presented annually for all first-year students on the Hatfield campus. Attendance is compulsory. A scaled-down version is also presented to second-year BVSc students on the Onderstepoort campus at the start of the academic year. Attendance is compulsory.

A similar programme is presented annually for all new diploma students on the Onderstepoort campus. Attendance is compulsory. Parents of diploma students may attend the first day of the programme, details of which will be provided in the documentation sent to all successful candidates at the end of the selection process.

Hospital Orientation Programme

The programme is presented annually for all BVSc III (old programme) and BVSc V (new programme) students. It takes place during the week before the clinic rotation programme starts in September. Attendance is compulsory.

Prescribed books and instruments

Students are requested not to purchase any books or instruments before they start with their chosen programme. Specific requirements will be provided during the academic orientation programme as well as in the relevant study guides.

Amendment of regulations and fees

The University retains the right to amend the regulations and to change fees without prior notification.

NB The fees advertised and thus levied in respect of a module or study programme represents a combination of the costs associated with the formal services rendered (for example lectures, practicals, access to laboratories, consumables used in laboratories, etc.) as well as associated indirect overheads such as the provision of library and recreation facilities, security and cleaning services, electricity and water supply, etc. Therefore, the fees in respect of a module or study programme cannot simply be reconciled with the visible services that are rendered in respect of such module or study programme.

Dress code

Special instructions regarding dress must be adhered to. Details will be furnished when students are notified that they have been selected for the programme. Provision is made during the orientation programme for the acquisition of protective clothing.

Excursions

As it is essential to gain practical experience outside the Faculty, students are reminded to make provision for an adequate amount of money to cover expenses for excursions throughout their period of study. Details are provided in the relevant study guides.

Vaccinations

It is expected of every student to complete the required vaccination protocol against rabies as arranged by Student Administration. The protocol is for the student's own account. Provision is made for the availability of documentation to facilitate claims with medical aid schemes.

Leave of absence

If it is impossible for a registered student at the University of Pretoria to continue with his/her studies/research in a specific year, but he/she intends to continue in the following year, the student must apply in writing to the dean of the relevant faculty for **leave of absence**. The application must include: full names, student number, address, reasons and period for leave of absence, for example the whole year, first semester (January to June) or second semester (July to December), name of supervisor (where applicable), and the student's intentions for the period after his/her leave of absence. However, in accordance with the policy of the University of Pretoria, leave of absence is not granted for more than two years. Any outstanding fees should be paid in full upon the student's return from his/her leave of absence.

Degree with distinction

Weighted averages (GPA), together with other faculty-specific criteria if applicable, are used at UP to calculate averages for the determination of distinctions.

Definition of terms

The following terms are generally used in all faculties.

academic year: the duration of the academic year as determined by the University Council.

capita selecta: a specific component or combination of components of an existing module.

certificate of satisfactory preparation: satisfactory preparation also implies satisfactory attendance at practical classes and clinical work.

core module: a compulsory module for a specific study programme.

module: an independent, defined learning unit, designed to result in a specific set of learning outcomes, and which is a component of a programme.

credit (or credit value): a value unit linked to particular learning activities and the total number of learning hours needed to complete a module successfully.

curriculum: a series of modules grouped together over a specified period of time and in a certain sequence according to the regulations.

elective module: a module that can be selected on an elective basis.

examination mark: the mark awarded to a student in a module on the basis of an examination, including practical and clinical examinations where applicable. If necessary, the examination mark is finalised after ancillary examinations have been completed.

final mark: the mark calculated on the basis of the semester/year mark and the examination mark awarded to a student in a module, using a formula which is determined from time to time by means of regulations for each module with the proviso that should no semester/year mark be required in a module, the examination mark serves as the final mark.

grade point average based on module credits: an average mark that is calculated by multiplying the final mark achieved in a module with the credit value of that module and then dividing the sum of these values by the total of the credit values of all the modules for which a student was enrolled. The result of these calculations is a weighted average based on module credits.

regulation for admission: a regulation approved by a faculty concerning the admission of students to the faculty and which includes a provision regarding the selection process.

SAQA: South African Qualifications Authority

semester module: a module that extends over one semester

semester/year mark: the mark awarded to a student on the basis of tests, class-work, practical work or any other work which was done in a particular module

specialist module: major module (speciality) in MMedVet programmes

syllabus: the division of the study material for a specific module, according to the regulations.

year module: a module that extends over one year (two semesters)

REGULATIONS AND CURRICULA: DEGREE AND DIPLOMA PROGRAMMES

The rules for the degrees published in this Yearbook are subject to change and may be amended prior to the commencement of the academic year in 2015.

The General Regulations (G Regulations) apply to all faculties of the University of Pretoria. It is expected of each student to familiarise himself or herself well with these regulations. Ignorance concerning these regulations will not be accepted as an excuse for any transgression.

1. Admission to undergraduate studies

General

- 1.1. To register for a first bachelor's degree at the University, a candidate should, apart from the required National Senior Certificate, comply with the particular requirements prescribed in the admission procedures and the faculty regulations of the respective faculties and departments for admission to particular modules and programmes.
- 1.2 The following persons may also be considered for admission:
 - (i) A candidate who is in possession of another certificate that is accepted by the University as equivalent to the required National Senior Certificate with admission for degree purposes.
 - (ii) A candidate who is a graduate from another tertiary institution or has been granted the status of a graduate of such an institution.
- 1.3 The Senate may limit the number of students allowed to register for a programme, in which case the Dean may, at his or her own discretion, select from the students who qualify for admission those who may be admitted.

2. Admission to diploma studies

Students will only be admitted to an undergraduate diploma programme if they comply with the specific requirements for admission to specific modules and programmes as stipulated in the admission procedures and faculty regulations of the various faculties and departments.

3. Academic literacy

It is expected of all new undergraduate students to complete the prescribed academic literacy module(s) as contained in the academic curriculum of the relevant Faculty.

4. Academic information management

It is expected of all new undergraduate students to complete the following module: AIM 101 Academic information management 101.

5. Registration for a particular year of study

At the beginning of an academic year, students register for all the modules they intend taking in that specific year (whether these be first-semester, second-semester or year modules).

6. Module credits for unregistered students

There are students who attend lectures, write tests and examinations and in this manner earn 'marks', but have either not registered for modules or have not registered as students at all. These marks will not be communicated to any student before s/he has provided proof of registration. Students cannot obtain any credits in a specific academic year for a module 'passed' in this manner during a previous academic year and for which they were not registered. This arrangement applies even where students are prepared to pay the tuition fees.

7. Examinations

7.1 Pass requirements

A final mark of at least 50% is required to pass a module. Students are also referred to the Faculty approved *Guidelines for Examinations and related matters in the Faculty of Veterinary Science* as well as individual study guides.

7.2 Subminima in examinations

Subminima required in modules or subdivisions of modules appear in the study guides issued annually for these modules.

7.3 Weighting of modules

The percentage of weighting of subsections of an examination in the calculation of the examination mark will be indicated in the individual study guides.

7.4 Examinations (Reg G.12)

The examinations for modules offered in the first semester, take place in April to June, while all other examinations (for second-semester modules and year modules) take place from August to November.

7.5 Ancillary examinations (Reg G.12.3)

After completion of an examination and before the final examination results are announced, the examiners may offer an additional evaluation opportunity on certain aspects of the work of the module as provided for in the *Guidelines for Examinations and related matters in the Faculty of Veterinary Science*.

7.6 Special examination

Students who have failed one or two modules and who have not been admitted to a supplementary examination, or who fail the supplementary examination(s), may be allowed to take a special examination after having worked full-time in the department/s concerned for a period determined by the head/s of department and with the Dean's approval. If they fail the latter, the Dean will determine when a further examination may be taken.

7.7 Perusal and Re-marking of examination papers scripts (also consult Reg G.14)

After an examination, departments provide feedback to students concerning the framework that was used by the examiners during the examination. The manner in which feedback is given is determined by the heads of department.

Students may apply for re-marking of an examination paper after perusal of the paper and payment of the prescribed fee. **This should take place within 5 working days after the announcement of the results of the primary examination and within 3 working days after the announcement of the results of the supplementary examination.** The examiner will be appointed by the head of the department concerned. Re-evaluation of oral examinations is not allowed.

7.8 **Supplementary examinations**

A head of department may require from a student who has been admitted to a supplementary examination, to do additional prescribed work for a specified period of time before he or she may take the supplementary examination as approved by the Dean. A student will only be allowed to do supplementary examinations in two modules.

7.9 **Statutory requirements**

Registration requirements contained in V.1(a)(3) and (4) and V.13(a)(iii) and (iv).

8. **Promotion requirements**

Promotion to a subsequent year of study in all undergraduate programmes offered by the Faculty is subject to the successful completion of all modules of the relevant year of study. Students are specifically referred to V.1(c) (iii), (iv), (v), (ix) and (x) as well as V.13 (d), (e), (g) and (h).

DEGREES AND DIPLOMA CONFERRED/AWARDED IN THE FACULTY OF VETERINARY SCIENCE

The following degrees and diploma are conferred/awarded in the Faculty (minimum period of study in brackets):

- (a) Bachelor of Veterinary Science – [BVSc]
(old programme – 4 years; new programme – 6 years)
- (b) Bachelor of Veterinary Science Honours – [BVSc(Hons)] (1 year)
- (c) Master of Veterinary Medicine – [MMedVet] (3-4 years)
- (d) Master of Science in Veterinary Science – [MSc (Veterinary Science)] (1 year)
- (e) Master of Science in Veterinary Industrial Pharmacology –
[MSc (Veterinary Industrial Pharmacology)] (1 year)
- (f) Master of Science in Veterinary Tropical Diseases – [MSc (Veterinary Tropical Diseases)] (1 year) – no new intake from 2012 onwards
- (g) Master of Science – Option: Animal/Human/Ecosystem Health (1 year)
[MSc Option: Animal/Human/Ecosystem Health]
- (h) Master of Science – Option: Ruminant Health
- (i) Master of Science – Option: Veterinary Epidemiology
- (j) Master of Science – Option: Veterinary Reproduction
- (k) Doctor of Philosophy – [PhD] (2 years)
- (l) Doctor of Veterinary Science – [DVSc]
- (m) University Diploma in Veterinary Nursing – [DipVetNurs] (2 years)

Students who were given permission by the deans of both faculties to register for a module offered by another faculty, must familiarise themselves with the requirements for admission to the module in question as well as the regulations governing subminima in examinations and supplementary examinations.

I. BACHELOR'S DEGREE

The General Regulations (G Regulations) apply to all faculties of the University of Pretoria. It is expected of each student to familiarise himself or herself well with these regulations. Ignorance concerning these regulations will not be accepted as an excuse for any transgression.

The General Regulations G.1 to G.15 are applicable to bachelor's degrees and also apply *mutatis mutandis* to the undergraduate diploma.

**V.1 Bachelor of Veterinary Science
[BVSc] (Code 08130003 – old programme) (Code 08130004 – new programme)**

(a) **Admission**

- 1. Minimum requirements for the new programme
- 1.1 Subject to the stipulations of the General Regulation, G.1., prospective students who wish to be admitted to the new programme, must have:
 - a National Senior Certificate (NSC) with the following subjects and minimum performance levels:

Subject and level requirements

Degree	APS	Group A		Group B
		English	Mathematics	Physical Science
BVSc	32	5 (60-69%) (at Home Language or First Additional Language level)	5 (60-69%)	5 (60-69%)

- completed the National Benchmark Test with performance above the “basic” level;
- completed the value-added questionnaire; and
- an admission point score (APS) of at least 32 (the sum of the 6 highest performance levels obtained, i.e. in the required subjects as set out above, excluding Life Orientation).

The selection procedure will make provision for various categories and will be reviewed on an annual basis for approval by Faculty Board and Senate.

Competence in Mathematics and Physical Science at school-leaving level is a requirement for registration as a veterinarian with the South African Veterinary Council.

OR

- successfully completed appropriate modules at tertiary level and/or a related degree with appropriate modules as required;

OR

- successfully completed related modules in an existing veterinary science degree programme at another university.

2. Admission will be subject to selection and the availability of places (see General Information).
3. 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.
4. 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.

(b) **Duration of study**

Four years of full-time study in the old programme (last intake in 2012) and **six years** in the new programme.

(c) **General – relevant to both programmes as applicable**

- (i) The General Regulation G.10.1 concerning satisfactory attendance, preparation and payment of module fees, applies to examination, promotion and attendance modules. Attendance at all lectures, practical classes, clinics (including clinical orientation and holiday clinics) and excursions is compulsory. Any form of absence must be justified by submission of a medical certificate or another acceptable form of evidence. Failure to comply may lead to examination refusal.

- (ii) Admission to the examinations in some modules is subject to specific requirements – consult study guides. The weighting of semester/year marks in the calculation of the final mark shall be 50%.
- (iii) A student is required to obtain a subminimum of 40% in the examination as well as a final mark of at least 50% to pass a module. A subminimum of 40% in subdivisions of theoretical and/or practical examinations may be required as stipulated by the Dean in consultation with the head of department concerned, and as set out in the annual study guide. In terms of the General Regulation G.10.4, a semester mark or year mark of at least 50% must be obtained in attendance modules. The stipulations of the General Regulations G.12.1 to G.12.5 also apply.
Promotion modules require a year mark of at least 65% to pass.
- (iv) A student must pass all the modules of the respective previous year of study in order to be promoted to the subsequent year of study, as well as to the clinical rotations. A single further examination will, however, be allowed for students who have **only one** of the following modules in the new programme outstanding at the end of the relevant academic year, provided the final mark is at least 40%:
 - ANV 420 Anaesthesiology
 - CLP 410 Clinical pathology
 - GNS 320 General surgery
 - VEM 210 Veterinary microbiology
 - VIM 220 Veterinary immunology
 - VKU 210 Animal science
 - VKU 220 Animal ecology
 - WDE 253 Pasture science
- (v) A student who fails a module or modules in a year of study, has to repeat, subject to the stipulations of the General Regulations G.11.2 (a) to (c) and Regulation V.1(c)(ix), all the modules for that particular year of study, except modules which were passed with a final mark of at least 65%, for which full exemption is granted. Provisional exemption is granted for an examination module passed with a final combined mark of less than 65%. This implies that at least 80% of the practical periods have to be attended and that a year/semester mark of at least 50% has to be obtained through the completion of all scheduled assessments, tests, tasks, etc., in order to obtain exemption from the examination in those modules at the end of the repeat semester/year. Examinations are compulsory in all the modules previously failed, as well as in those modules in which exemption from the examination has not been obtained. If a student fails any of these examinations (or supplementary examination), he or she will not be allowed to continue their studies in the Faculty [see V.1(c)(x)].
- (vi) No limit is placed on the number of modules in which supplementary examinations may be done, except in the final year of study. The nature and date of supplementary examinations are determined by the Dean in consultation with the head of department.
- (vii) A head of department may require from a student who has been admitted to a supplementary examination, to do additional prescribed work for a specified period of time before he or she may take the supplementary examination as approved by the Dean.
- (viii) Subject to the General Regulation, G.12.4.3, a minimum of 50% is required to pass a supplementary examination. The semester or year mark is not taken into account.

- (ix) In addition to the stipulations of the General Regulation, G.3.2(b), a student will not be allowed to repeat the same year of study more than once.
- (x) A student who has to discontinue his or her studies in terms of stipulations (v) and (ix) above, may request the Dean in writing to consider his or her application for readmission to the Faculty in terms of prescribed procedures as stipulated in *Application of General Regulation G.3 and Faculty Regulation V.1.c(ix) in the Faculty of Veterinary Science, University of Pretoria* as approved by the Faculty Board.

(d) **Curriculum**

1. Old curriculum (Code 08130003)

(i) **Fourth year of study**

- | | | |
|-----|---------|---|
| (1) | BHP 650 | Applied bovine health and production |
| (2) | ECS 650 | Applied equine clinical studies |
| (3) | PHE 650 | Applied veterinary public health |
| (4) | PHP 650 | Applied porcine health and production |
| (5) | PLY 650 | Applied poultry health and production |
| (6) | SAC 650 | Applied small animal clinical studies |
| (7) | SSH 650 | Applied small stock health and production |

(aa) **Repetition of the final year of study**

Students who have failed more than two modules at the time of the Examination Commission meeting, must repeat the final year of the curriculum with due cognisance of rule V.1(c)(v), unless the Dean decides otherwise.

(bb) **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.

(cc) **Degree with distinction (old and new programme)**

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.

2. New curriculum (Code 08130004)
Total credits required: 948

Year	Sem 1	Sem 2	Total
1	88	57	145
2	31	117	148
3		139	139
4	21	129	150
5	100		100
6		280	280
Total	240	722	963

Key for: >>> (Only a promotional mark will be given. The module will be credited in a later semester)

First year of study			Credits required: 145		
First Semester		88	Second Semester		57
Modules		Credits	Modules		Credits
AIM 101	Academic information management	6	BME 120	Biometry	16
CMY 117	General chemistry	16	CMY 127	General chemistry	16
LST 110	Language and study skills	6	GTS 161	Introductory genetics	8
MLB 111	Molecular and cell biology	16	VKU 120	Introductory animal science	6
MTL 180	Medical terminology	12	VKU 122	Introduction to animal nutrition	8
PHY 131	General physics	16	VPL 120	Veterinary professional life	3
WTW 134	Mathematics	16			

Second year of study			Credits required: 149		
First Semester		31	Second Semester		118
Modules		Credits	Modules		Credits
VCA 200	Veterinary comparative anatomy	>>>	VCA 200	Veterinary comparative anatomy	38
VET 200	Veterinary ethology and genetics	>>>	VET 200	Veterinary ethology and genetics	23
VPH 200	Veterinary physiology and histology	>>>	VPH 200	Veterinary physiology and histology	33
VPL 200	Veterinary professional life	>>>	VPL 200	Veterinary professional life	7
VEM 210	Veterinary microbiology	5	VIM 220	Veterinary immunology	5
VKU 210	Animal science	8	VKU 220	Animal ecology	12
WDE 253	Pasture science	18			

Third year of study			Credits required: 139		
First Semester			Second Semester		139
Modules		Credits	Modules		Credits
GOP 300	General and organ pathology	>>>	GOP 300	General and organ pathology	30
IVD 300	Introductory veterinary diagnostics	>>>	IVD 300	Introductory veterinary diagnostics	28
TOX 300	Veterinary toxicology	>>>	TOX 300	Veterinary toxicology	14
VIP 300	Veterinary infectious diseases	>>>	VIP 300	Veterinary infectious diseases	14
VPH 300	General veterinary pharmacology	>>>	VPH 300	General veterinary pharmacology	14
VPL 300	Veterinary professional life	>>>	VPL 300	Veterinary professional life	10
VTP 300	Veterinary parasitology	>>>	VTP 300	Veterinary parasitology	22
			GNS 320	General surgery	7

Fourth year of study			Credits required: 150		
First Semester		21	Second Semester		129
Modules		Credits	Modules		Credits
DIM 400	Diagnostic imaging	>>>	DIM 400	Diagnostic imaging	17
DPT 400	Diagnostic pathology	>>>	DPT 400	Diagnostic pathology	16
SAS 400	Small animal medicine and surgery	>>>	SAS 400	Small animal medicine and surgery	50
VPL 400	Veterinary professional life	>>>	VPL 400	Veterinary professional life	11
VRP 400	Veterinary reproduction	>>>	VRP 400	Veterinary reproduction	17
CLP 410	Clinical pathology	7	ANV 420	Anaesthesiology	8
EQM 410	Equine medicine and surgery	14	PHP 420	Porcine Health and production	5
			PLY 420	Poultry Health and production	5

Fifth year of study			Credits required: 100		
First Semester		100	Second Semester		
Modules		Credits	Modules		Credits
BHP 510	Bovine health and production	25	VCP 600	Veterinary core practice	>>>
DPT 510	Diagnostic pathology	9	VEP 600	Veterinary elective practice	>>>

EPL 510	Veterinary epidemiology	10	Choose one elective from the following: 1. Small animal and exotic practice 2. Rural and wildlife veterinary practice 3. Veterinary public health and state veterinary practice 4. Equine practice 5. Intensive animal production practice 6. Veterinary research career
SSH 510	Small stock health and production	25	
VOH 510	One health	7	
VPH 510	Veterinary public health	14	
VPL 510	Veterinary business management	10	

Sixth year of study			Credits required: 280		
First Semester			Second Semester		280
Modules		Credits	Modules		Credits
VCP 600	Veterinary core practice (continuation of previous year)	>>>	VCP 600	Veterinary core practice	160
VEP 600	Veterinary elective practice (continuation of previous year)	>>>	VEP 600	Veterinary elective practice	120

II. HONOURS DEGREE

V.2 Bachelor of Veterinary Science Honours [BVScHons] (Code 08240001)

Also consult the General Regulations. G.16 to G.29. Students are required to confirm whether a module will be presented in any particular 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.

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.

(a) **Requirements for admission**

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.

(b) **Duration**

The minimum duration for this degree is two years.

(c) **Curriculum**

The curriculum consists of a number of modules, equivalent to a minimum of 120 credits, chosen from the list below.

- (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.

DISCIPLINE-BASED			
	Discipline	Module	Credits
Anaesthesiology	Anaesthesiology	ANV 771	30
Anatomy/Histology	Anatomy	ANG 774	30
	Histology	HIS 800	20
Clinical Pathology	Clinical Pathology	KPA 701	32
	Clinical Pathology	KPA 702	31
Ophthalmology	Ophthalmology	OFM 700	30
Pharmacology	Clinical pharmacology	FAK 877	30
Physiology	Physiology	FSL 787	30
	Physiology	FSL 788	30
	Necropsy technique and interpretation	PAT 807	28
Pathology	Ophthalmological pathology	PAT 808	20
	Mechanisms of disease	PAT 871	20

SPECIES-BASED			
	Discipline	Module	Credits
Horses	Anatomy	ANG 703	32
	Equine medicine	GEN 703	40
	Radiology: Horses	DIM 783	33
	Surgery: Horses	CHV 704	33
	Non-radiological diagnostic imaging of horses	DIM 784	33
Small Animals	Anatomy	ANG 705	32
	Radiology: Dogs and cats	DIM 781	39
	Small animal medicine	GEN 702	33
	Small animal medicine	GEN 707	37
	Small animal behavioural medicine	GEN 709	30
	Surgery: Small animals	CHV 703	33
	Surgery: Small animals	CHV 705	33
Non-radiological diagnostic imaging of dogs and cats	DIM 782	30	

(d) **Registration**

Students, who intend to register for this programme, must consult with the head of department concerned, well in advance, as not all the postgraduate modules are necessarily offered every year.

(e) Examinations

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.

- (i) 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.
- (ii) Degree 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.

III. MASTER'S DEGREES**V.3 Master of Veterinary Medicine
[MMedVet]**

Also consult the General Regulations. Students are required to confirm whether a module will be presented in any particular 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.

The master's degree in Veterinary Medicine is a professional degree and equips the student with a broad scientific background in the theoretical and practical aspects of the chosen field of study.

The MMedVet degree may entitle the holder to registration as a specialist with the South African Veterinary Council together with other requirements as determined by Council. Candidates are encouraged to review current Council guidelines on specialist registration.

(a) Admission

- (i) Subject to the stipulations of the applicable General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree [Reg.V.2.(c)], with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.
- (ii) Candidates are required to be qualified veterinarians registered with the South African Veterinary Council and to work in the field of specialisation under supervision of an approved supervisor for the required duration at a facility approved for this purpose.
- (iii) The number of students that can be admitted to the MMedVet degree programme annually depends on the training capacity of a department, the number of specialists appointed and the number of available posts.

(b) **Attendance requirements**

- (i) Unless stipulated otherwise, the Dean must be satisfied that the candidates will have sufficient access to appropriate facilities and, where necessary, supervision by an appropriate person to complete the work required for the degree at a satisfactory level.
- (ii) Attendance requirements are determined in each individual case by the head of department concerned.
- (iii) Candidates will be required to keep a logbook or similar record of experiential training which is to be signed by the supervisor every 6 months. The logbook or other suitable record is to be made available for auditing when the specialist module is monitored by the South African Veterinary Council.

(c) **Curricula**

The MMedVet degree is offered in the following fields of study:

No	Fields of study	Code	Department
1	Anaesthesiology	08250131	Companion Animal Clinical Studies
2	Cattle Herd Health	08250231	Production Animal Studies
3	Clinical Laboratory Diagnostics	08250191	Companion Animal Clinical Studies
4	Diagnostic Imaging	08250142	Companion Animal Clinical Studies
5	Laboratory Animal Science	08250211	Paraclinical Sciences
6	Medicine (Bovids)	08250052	Production Animal Sciences
7	Medicine (Equine)	08250053	Companion Animal Clinical Studies
8	(Medicine (Small Animals)	08250054	Companion Animal Clinical Studies
9	Ophthalmology	08250251	Companion Animal Clinical Studies
10	Pathology	08250101	Paraclinical Sciences
11	Pharmacology	08251131	Paraclinical Sciences
12	Pig Herd Health	08250182	Production Animal Studies
13	Poultry Diseases	08250171	Production Animal Studies
14	Reproduction	08250031	Production Animal Studies
15	Small Stock Herd Health	08250241	Production Animal Studies
16	Surgery (Equine)	08251121	Companion Animal Clinical Studies
17	Surgery (Small Animals)	08250022	Companion Animal Clinical Studies
18	Toxicology	08251141	Paraclinical Sciences
19	Ethology Under review and will not be offered in 2015	08250041	Companion Animal Clinical Studies
20	Veterinary Public Health	08250041	Paraclinical Sciences
21	Wildlife Diseases	08250221	Production Animal Studies

Elective modules will in all instances be determined in consultation with the head of department in which the proposed special field of study is offered. If deemed necessary, modules offered by other faculties of the University of Pretoria may form part of the prescribed programme.

1. **MMedVet (Anaesthesiology) Code: 08250131**
 [Department: Companion Animal Clinical Studies]

Total credits required: 510 **Duration: Minimum 2 years Maximum 5 years**

	Code	Name	Credits
Research component	ANV 890	Mini-dissertation: Anaesthesiology	90
Specialist module	ANV 800	Anaesthesiology	400
Core module	VRM 811	Research methodology	20

Prerequisites for the abovementioned programme

Programme	Code	Name	Credits
BVScHons	ANG 774	Anatomy	30
	FSL 787	Physiology	30
	FSL 788	Physiology	30
	ANV 771	Anaesthesiology	30

2. **MMedVet (Cattle Herd Health) Code:08250231**
 [Department: Production Animal Studies]

Total credits required: 550 **Duration: Minimum 2 years Maximum 6 years**

	Code	Name	Credits
Research component	BKG 890	Mini-dissertation: Cattle Herd Health	90
Specialist module	BHP 800	Bovine health and production	400
Core modules	VRM 811	Research methodology	20
	EPL 851	Veterinary epidemiology	10
	EPL 852	Biostatistics in veterinary science	20
Elective module	Any appropriate module of at least 10 credits as approved by the HOD		10

3. **MMedVet (Clinical Laboratory Diagnostics) Code: 08250191**
 [Department: Companion Animal Clinical Studies]

Total credits required: 510 **Duration: Minimum 2 years Maximum 5 years**

	Code	Name	Credits
Research component	KDK 890	Mini-dissertation: Clinical laboratory diagnostics	90
Specialist module	KDK 800	Clinical laboratory diagnostics	400
Core module	VRM 811	Research methodology	20

Prerequisites for the abovementioned programme

Programme	Code	Name	Credits	
BVScHons	KPA 701	Clinical pathology	32	
	KPA 702	Clinical pathology	31	
	<i>and two of the following:</i>			
	FSL 787	Physiology	30	
	FSL 788	Physiology	30	
	PAT 871	Mechanisms of disease	20	
	GEN 707	Small animal medicine	37	

4. **MMedVet (Diagnostic Imaging) Code:08250142**
 [Department: Companion Animal Clinical Studies]

Total credits required: 546 **Duration: Minimum 2 years Maximum 5 years**

	Code	Name	Credits
Research component	DIM 890	Mini-dissertation: Diagnostic imaging	90
Specialist module	DIM 870	Diagnostic imaging	400
Core modules	VRM 811	Research methodology	20
	MFK 800	Medical physics	36

Prerequisites for the abovementioned programme

Programme	Code	Name	Credits
BVScHons	ANG 774	Anatomy	30
	<i>and three of the following depending on specie bias:</i>		
	DIM 781	Radiology: Dogs and cats	39
	DIM 782	Non-radiological diagnostic imaging of dogs and cats	30
	DIM 783	Radiology: Horses	33
	DIM 784	Non-radiological diagnostic imaging of horses	33
	GEN 703	Equine medicine	40
	GEN 707	Small animal medicine	33

5. **MMedVet (Laboratory Animal Science) Code: 08250211**
 [Department: Paraclinical Sciences]

Total credits required: 580 **Duration: Minimum 3 years Maximum 6 years**

	Code	Name	Credits
Research component	PFK 890	Mini-dissertation: Laboratory Animal Science	130
Specialist module	PFK 800	Laboratory Animal Science	400
Core module	VRM 811	Research methodology	20
Elective modules	Any two appropriate module(s) of at least 30 credits as approved by the HOD		30

6. **MMedVet (Medicine) (Bovids) Code: 08250052**
 [Department: Production Animal Sciences]

Total credits required: 564 **Duration: Minimum 2 years Maximum 6 years**

	Code	Name	Credits
Research component	BKG 890	Mini-dissertation: Cattle Herd Health	90
Specialist module	BHP 800	Bovine health and production	400
Core modules	VRM 811	Research methodology	20
	EPL 851	Veterinary epidemiology	10
	FAK 877	Clinical pharmacology	30
Elective module(s)	Any appropriate module(s) of at least 14 credits as approved by the HOD		14

7. **MMedVet (Medicine) (Equine) Code: 08250053**
 [Department: Companion Animal Clinical Studies]

Total credits required: 510 **Duration: Minimum 2 years Maximum 5 years**

	Code	Name	Credits
Research component	GEN 892	Mini-dissertation: Equine medicine	90
Specialist module	GEN 802	Equine medicine	400
Core module	VRM 811	Research methodology	20

Prerequisites for the abovementioned programme

Programme	Code	Name	Credits
BVScHons	FSL 787	Physiology	30
	<i>and three of the following:</i>		
	CHV 704	Surgery: Horses	33
	DIM 783	Radiology: Horses	33
	DIM 784	Non-radiological diagnostic imaging of horses	33
	FAK 877	Clinical pharmacology	30
	GEN 703	Equine medicine	40
	KPA 701	Clinical pathology	32
	KPA 702	Clinical pathology	31
	OFM 700	Ophthalmology	30

8. **MMedVet (Medicine) (Small Animals) Code: 08250054**
 [Department: Companion Animal Clinical Studies]

Total credits required: 510 **Duration: Minimum 2 years Maximum 5 years**

	Code	Name	Credits
Research component	GEN 893	Mini-dissertation: Small animal medicine	90
Specialist module	GEN 803	Small animal medicine	400
Core module	VRM 811	Research methodology	20

Prerequisites for the abovementioned programme

Programme	Code	Name	Credits
BVScHons	GEN 702	Small animal medicine	33
	GEN 707	Small animal medicine	37
	<i>and two of the following:</i>		
	DIM 781	Radiology: Dogs and cats	39
	DIM 782	Non-radiological diagnostic imaging of dogs and cats	30
	KPA 701	Clinical pathology	32
	KPA 702	Clinical pathology	31
	ANV 771	Anaesthesiology	30
	FAK 877	Clinical pharmacology	30
	FSL 787	Physiology	30
	PAT 871	Mechanisms of disease	20

9. **MMedVet (Ophthalmology) Code: 08250251**
 [Department: Companion Animal Clinical Studies]

Total credits required: 510 **Duration: Minimum 2 years Maximum 5 years**

	Code	Name	Credits
Research component	OFM 890	Mini-dissertation: Ophthalmology	90
Specialist module	OFM 800	Ophthalmology	400
Core module	VRM 811	Research methodology	20

Prerequisites for the abovementioned programme

Programme	Code	Name	Credits
BVScHons	ANG 774	Anatomy	30
	FAK 877	Clinical pharmacology	30
	FSL 788	Physiology	30
	PAT 808	Ophthalmological pathology	20

10. **MMedVet (Pathology) Code: 08250101**
 [Department: Paraclinical Sciences]

Total credits required: 530 **Duration: Minimum 4 years Maximum 6 years**

	Code	Name	Credits
Research component	PAT 890	Mini-dissertation: Pathology	90
Specialist module	PAT 800	Pathology	400
Core modules	VRM 811	Research methodology	20
	HIS 800	Histology	20

11. **MMedVet (Pharmacology) Code: 08251131**
 [Department: Paraclinical Sciences]

Minimum total credits required: 550 **Duration: Minimum 3 years**
(and Elective credits) **Maximum 5 years**

	Code	Name	Credits
Research component	FAK 895	Mini-dissertation: Pharmacology	126
Specialist module	FAK 800	Pharmacology	344
Core module	VRM 811	Research methodology	20
	FAK 876	Advanced fundamentals of pharmacology	30
Elective modules	<i>Modules to be approved by the HOD</i>		
	VIP 800	Veterinary industrial pharmacology, and	50
	EPL 852	Biostatistics in veterinary science	20
	<i>or</i>	<i>or</i>	<i>or</i>
	FAK 877	Clinical pharmacology	30

12. MMedVet (Pig Herd Health) Code: 08250182
 [Department: Production Animal Studies]

Total credits required: 535 **Duration: Minimum 2 years Maximum 6 years**

	Code	Name	Credits
Research component	VKH 890	Mini-dissertation: Pig herd health	90
Specialist module	VKH 800	Pig herd health	400
Core Modules	VRM 811	Research methodology	20
	SID 815	Selected infectious diseases: Pigs	15
Elective module(s)	Any appropriate module(s) of at least 10 credits as approved by the HOD		10

13. MMedVet (Poultry Diseases) Code: 08250171
 [Department: Production Animal Studies]

Total credits required: 547 **Duration: Minimum 2 years Maximum 6 years**

	Code	Name	Credits
Research component	PVT 890	Mini-dissertation: Poultry diseases	90
Specialist module	PHP 800	Poultry health and production	400
Core modules	VRM 811	Research methodology	20
	PHP 871	Poultry health and production	32
Elective module(s)	Any appropriate module(s) of at least 5 credits as approved by the HOD		5

14. MMedVet (Reproduction) Code: 08250031
 [Department: Production Animal Studies]

Total credits required: 600 **Duration: Minimum 2 years Maximum 6 years**

	Code	Name	Credits
Research component	GSK 891	Mini-dissertation: Reproduction	90
Specialist module	GSK 800	Reproduction	400
Core modules	VRM 811	Research methodology	20
	GSK 801	Reproduction physiology	20
	GSK 802	Assisted reproduction	30
	GSK 803	Female infertility	20
	GSK 804	Male breeding soundness and andrology	20

15. MMedVet (Small Stock Herd Health) Code: 08250241
 [Department: Production Animal Studies]

Total credits required: 520 **Duration: Minimum 2 years Maximum 6 years**

	Code	Name	Credits
Research component	KKS 890	Mini-dissertation: Small stock herd health	90
Specialist module	KKS 800	Small stock herd health	400
Core module	VRM 811	Research methodology	20
Elective module	Any appropriate module as approved by the HOD		10

16. **MMedVet (Surgery) (Equine) Code: 08251121**
 [Department: Companion Animal Clinical Studies]

Total credits required: 510 **Duration: Minimum 2 years Maximum 5 years**

	Code	Name	Credits
Research component	CHV 890	Mini-dissertation: Equine surgery	90
Specialist module	CHV 804	Surgery	400
Core module	VRM 811	Research methodology	20

Prerequisites for the abovementioned programme

Programme	Code	Name	Credits	
BVScHons	ANG 703	Anatomy	32	
	DIM 783	Radiology: Horses	33	
	DIM 784	Non-radiological diagnostic imaging of horses	33	
	<i>And one of the following:</i>			
	ANV 771	Anaesthesiology	30	
	GEN 703	Equine medicine	40	
	OFM 700	Ophthalmology	30	
	CHV 704	Surgery: Horses	33	

17. **MMedVet (Surgery)(Small Animals) Code: 08250022**
 [Department: Companion Animal Clinical Studies]

Total credits required: 510 **Duration: Minimum 2 years Maximum 5 years**

	Code	Name	Credits
Research component	CHV 892	Mini-dissertation: Small animal surgery	90
Specialist module	CHV 803	Surgery	400
Core module	VRM 811	Research methodology	20

Prerequisites for the abovementioned programme

Programme	Code	Name	Credits
BVSc[Hons]	CHV 703	Surgery: Small animals (Soft tissue)	33
	CHV 705	Surgery: Small animals (Orthopaedics)	33
	ANG 705	Anatomy	32
	DIM 781	Radiology: Dogs and cats	39

18. **MMedVet (Toxicology) Code: 08251141**
 [Department: Paraclinical Sciences]

Total credits required: 430 **Duration: Minimum 3 years Maximum 5 years**

	Code	Name	Credits
Research component	TOK 890	Mini-dissertation: Toxicology	90
Specialist module	TOK 800	Toxicology	270
Core modules	VRM 811	Research methodology	20
	EPL 852	Biostatistics in veterinary science	20
	TOK 801	Veterinary toxicology: Organ/systems toxicology	30

19. **MMedVet (Ethology) Code: 08250041**
 [Department: Companion Animal Clinical Studies]
 Under review – will not be offered in 2015

20. **MMedVet (Veterinary Public Health) Code: 08250041**
 [Department: Paraclinical Sciences]

Total credits required: 600 Duration: Minimum 3 years Maximum 5 years

	Code	Name	Credits
Research component	VVD 890	Mini-dissertation: Veterinary public health	100
Specialist module	VVD 800	Veterinary public health	300
Core Modules	VRM 811	Research methodology	20
	EPL 851	Basic veterinary epidemiology	10
	VPH 881	Veterinary public health	40
	VPH 882	Veterinary public health	40
	VPH 883	Veterinary public health	40
	VPH 884	Veterinary public health	40
Elective module	Any appropriate module(s) of at least 10 credits as approved by the HOD		10

21. **MMedVet (Wildlife Diseases) Code: 08250221**
 [Department: Production Animal Studies]

Total credits required: 563 Duration: Minimum 4 years Maximum 6 years

	Code	Name	Credits
Research component	WSK 890	Mini-dissertation: Wildlife diseases	90
Specialist module	WLS 800	Veterinary wildlife studies	420
Core Modules	VRM 811	Research methodology	20
	PAT 806	Pathology: Wildlife	28
Elective module	Any appropriate module of at least 5 credits as approved by the HOD		5

(d) **Conferment of degree**

The MMedVet degree is conferred by virtue of completion of the required ancillary modules, an examination in the specialist module, and a mini-dissertation and appropriate research outputs.

(e) **Examinations**

(Consult the applicable General Regulations.)

- (i) The examination(s) in the special field of study may only be taken from the end of the second year of study onwards.
- (ii) The nature and duration of the examination(s), which will test fully the theoretical knowledge as well as the practical skills of the student, is determined by the head of department in which the chosen field of study is offered.
- (iii) A minimum examination mark of 50% is required in each of the theoretical and practical sections of the module where a semester or year mark is not required. However, in cases where a semester or year mark is awarded, the latter will contribute 50% to the final mark.
 A subminimum of 40% is required in the examination, and a final mark of at least 50% to pass in the theoretical and the practical sections. Instructions in the

information guide regarding semester, year and examination marks, are brought specifically to the attention of students.

A student who fails in one or more modules, may be admitted by the Dean to a supplementary examination in such module(s), on the recommendation of the head of department concerned, and after a time-lapse determined by the Dean. The average mark awarded for theoretical and practical examinations in the specialist module accounts for 75% of the final mark, and the mini-dissertation for 25%.

Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a minimum examination mark, and a final mark of at least 60% for admission.

(f) **Mini-dissertation**

Also consult the General Regulations.

(i) A student must submit a mini-dissertation, which deals with the particular field of study, prior to the examination in the theoretical section of the chosen field of study.

(ii) A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen field of study. (Assistance with statistical processing, applied specialised procedures, etc. is allowed, but must be acknowledged.) The student may use appropriate research done previously, to add to the writing of the mini-dissertation.

Earlier, related publications by the student may be bound with the mini-dissertation, but may not substitute the complete text of the mini-dissertation. Publications that are submitted, must be rounded off by means of an extensive introduction, materials, and information concerning methods and a discussion of the results. The mini-dissertation will be evaluated by an external examiner, who may not necessarily attend the final examination.

Before or together with the mini-dissertation, a draft article based on the mini-dissertation must be prepared for publication in an acknowledged journal and submitted to the Head: Student Administration, failing which the degree will not be conferred. The draft article must be acceptable to the supervisor and must comply with the requirements for subsidy (see applicable faculty rules). (Also consult the General Regulations.)

(iii) The average of the separate marks awarded by all the examiners, constitutes the final mark for the mini-dissertation. The minimum pass mark is 50%. A student who has failed may be permitted by the Dean, on the recommendation of the head of department concerned, to submit an amended mini-dissertation for final adjudication. The mark awarded for the mini-dissertation will make up 25% of the final mark.

(g) **Degree with distinction**

In order to obtain the degree with distinction, a minimum pass mark of 75% is required in the examination in the chosen field of study and the mini-dissertation together.

3. **MSc (Veterinary Science) Code: 08251004**
 [Department: Paraclinical Sciences]

Total credits required: 260 **Duration: Minimum 1 year Maximum 2 years**

	Code	Name	Credits
Research component	VWE 804	Dissertation: Paraclinical sciences	240
Core module	VRM 811	Research methodology	20

4. **MSc (Veterinary Science) Code: 08251005**
 [Department: Production Animal Studies]

Total credits required: 260 **Duration: Minimum 1 year Maximum 2 years**

	Code	Name	Credits
Research component	VWE 805	Dissertation: Production animal studies	240
Core module	VRM 811	Research methodology	20

5. **MSc (Veterinary Science) Code: 08250901**
 [Department: Veterinary Tropical Diseases]

Total credits required: 260 **Duration: Minimum 1 year Maximum 2 years**

	Code	Name	Credits
Research component	VWE 801	Dissertation: Veterinary tropical diseases	240
Core module	VRM 811	Research methodology	20

(d) **Conferment of degree**

The MSc degree is conferred by virtue of the successful completion of a dissertation. Regulations V.3(g)(i) and (ii) apply *mutatis mutandis*. (Also consult the General Regulations as well as Reg.V.3 (g)(ii) and (iii) concerning the content, submission and editing of the dissertation.)

The research topic is determined in consultation with the head of department, and the research project(s) that follow, must be approved according to Faculty guidelines.

Before or together with the dissertation, a student must submit at least one draft article for publication in an acknowledged journal, failing which the degree will not be conferred. The draft article must be based on the research for the dissertation and must be acceptable to the supervisor and meet subsidy requirements. (Also consult the General Regulations.)

(e) **Pass with distinction**

The degree is conferred with distinction on a student who has obtained at least 75% for the dissertation.

V.5 Master of Science in Veterinary Industrial Pharmacology [MSc (Veterinary Industrial Pharmacology)] (Code 08251006)

Also consult the General Regulations. Students are required to confirm whether a module will be presented in any particular 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.

The MSc (Veterinary Industrial Pharmacology) is a coursework-based degree programme with a component of applied research (mini-dissertation).

(a) **Requirements for admission**

Subject to the stipulations of the applicable General Regulation, an honours degree in natural sciences or agriculture such as a BScHons or BAgricHons, a four-year scientific-based degree such as BPharm and BScAgric, a BVSc or equivalent degree, is required.

A candidate with a completed BTech degree with a minimum of 60% in the broad area of specialisation that the candidate wishes to pursue a master's programme must first complete additional undergraduate coursework as well as coursework at honours level as determined by the head of department. The programme of study must be approved by the Postgraduate Committee, Faculty Board and Subcommittee of Senate. Confirmation of candidature will be based on the successful completion of the additional coursework requirements before admission to the master's programme.

In certain cases, it remains the prerogative of the head of department to require, in addition to the entrance requirements, the successful completion of an admissions test before registration. A student may be required to pass a proficiency test in English (TOEFL).

MSc (Veterinary Industrial Pharmacology) (Code 08251006)

[Department: Paraclinical Sciences]

Total credits required: 200

Duration: Minimum 1 year Maximum 2 years

	Module	Name	Credits
Research	VIP 890	Mini-dissertation: Veterinary Industrial Pharmacology	100
Core modules	VRM 811	Research methodology	20
	FAK 876	Advanced fundamentals of pharmacology	30
	VIP 800	Veterinary industrial pharmacology	50

(c) **Conferment of degree**

The MSc (Veterinary Industrial Pharmacology) degree is conferred by virtue of the successful completion of prescribed modules in the curriculum.

(d) **Examination**

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 will contribute 50% 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 candidates.

Should a candidate fail a module, but score a mark of at least 40%, he or she may be admitted to a supplementary examination, which has to be taken either during the same examination period, or not later than the subsequent examination period. If a candidate fails to qualify for a supplementary examination, a special examination may be granted after one semester has lapsed.

The examination in the module Veterinary industrial pharmacology VIP 800 may only be taken after successfully completing the module Advanced fundamentals of pharmacology FAK 876.

(e) **Mini-dissertation**

Also consult the General Regulations.

Candidates must submit a mini-dissertation which deals with an applied field of study within the veterinary pharmaceutical industry. The topic is determined in consultation with the head of department, and the research project that follows, must be approved according to Faculty guidelines.

The mini-dissertation is based on an applied research project or related research projects (which need not be original), planned and reported by the candidate. (Assistance with statistical processing, applied specialised procedures, etc. is allowed, but must be acknowledged.) The candidate may use appropriate research done previously, to add to the writing of the dissertation.

Previous, related publications by the candidate may be bound with the mini-dissertation, but may not substitute the complete text of the mini-dissertation. Publications, which are submitted, must be rounded off by means of an extensive introduction, materials, and information concerning methods and a discussion of the results. An external examiner, who may not necessarily attend the final examination in the special field of study, will evaluate the mini-dissertation.

Before or together with the mini-dissertation, a draft article based on the mini-dissertation must be prepared for publication in an acknowledged journal, failing which the degree will not be conferred. The draft article must be acceptable to the supervisor and must comply with the requirements for subsidy (see applicable Faculty rules). Also consult the General Regulations.

The average mark of the separate marks awarded by all examiners, constitutes the final mark for the dissertation. The minimum pass mark is 50%. The Dean, on the recommendation of the head of the department, may permit a candidate who has failed, to submit an amended mini-dissertation for final adjudication. The mark awarded for the mini-dissertation will make up 25% of the final mark.

(f) **Pass with distinction**

In order to obtain the degree with distinction, 75% in the Mini-dissertation and a cumulative average of 75% in the core modules provided that a minimum pass mark of 60% in all the core modules are required.

V.6 Master of Science
Option: Animal/Human/Ecosystem Health (Code 08251008)

Also consult the General Regulations. Students are required to confirm whether a module will be presented in any particular 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.

(a) **Requirement for admission**

Subject to the stipulations of the applicable General Regulations, a BVSc, a four-year BSc in Agriculture (Animal Science), Microbiology, Zoology or Entomology or an equivalent degree is required.

In certain cases, it remains the prerogative of the head of department to require, in addition to the entrance requirements already mentioned, the successful completion of an admissions test before registration. A student may also be required to pass a proficiency test in English (TOEFL) at an acceptable level.

(b) **Curriculum**

This degree programme underlines the connection between the health of animals, humans and the environment in which they exist. It caters for the needs of candidates who wish to be trained as health professionals and decision or policy makers involved in the diagnosis, control and prevention of tropical animal diseases and, secondly, as higher level health officers (decision or policy makers) responsible for the development and implementation of appropriate control strategies, development and of policies and promotion of international animal health, including marketing and trade of animals (livestock and wildlife) and their products.

Core and specialist modules are grouped into the two career paths, directed at (i) health professionals and (ii) managers and policy makers. It is primarily a web-based modular degree programme.

MSc Option: Animal/Human/Ecosystem Health (Code 08251008)

[Department: Veterinary Tropical Diseases]

Career path 1 – Directed at field and regulatory health professionals

Total credits required: 240

**Duration: Minimum 1 year
 Maximum 2 years**

	Module	Name	Credits
Research	AHE 890	Mini-dissertation	80
Core modules	VRM 811	Research methodology	20
	AHE 801	Animal/Human/Ecosystem health	30
Specialist modules	AHE 803	Diseases surveillance and laboratory diagnostics	25
	AHE 804	High impact diseases	20
	AHE 805	Zoonoses	20
	AHE 806	Emerging and re-emerging disease	15
	AHE 807	Animal health management	30

Career path 2 – Directed at managers and policy makers

**Minimum total credits required: 240
(and Elective credits)**

**Duration: Minimum 1 year
Maximum 2 years**

	Module	Name	Credits
Research	AHE 890	Mini-dissertation	80
Core modules	VRM 811	Research methodology	20
	AHE 801	Animal/Human/Ecosystem health	30
Specialist modules	AHE 807	Animal health management	30
	AHE 808	Marketing and trade of animals and their products	30
	AHE 809	Policy planning and legislation	20
	AHE 810	Communication and management	20
Elective modules	<i>In consultation with the HED and study leader, choose modules to the credit value of at least 30 from the following list:</i>		
	AHE 803	Diseases surveillance and laboratory diagnostics	25
	AHE 804	High impact diseases	20
	AHE 805	Zoonoses	20
	AHE 806	Emerging and re-emerging disease	15

(c) **Conferment of degree**

The MSc degree is conferred by virtue of the successful completion of coursework. The final mark will be calculated as follows: Coursework: 60%; Mini-dissertation: 40%

(d) **Examination**

If a student fails a module, he/she will have to repeat the module the following year.

(e) **Mini-dissertation**

Consult the General Regulations.

On an appropriate topic depending on the field of interest of the student, a research project of limited scope must be undertaken and written in the format of a mini-dissertation to fulfil the requirements of the MSc. The research topic is determined in consultation with the supervisor and head of department and the research project must be approved according to Faculty guidelines.

Before or together with the mini-dissertation, a student must submit at least one draft article for publication in an acknowledged journal, failing which the degree will not be conferred. The draft article must be based on the research for the mini-dissertation and must be acceptable to the supervisor and meet subsidy requirements. (Also consult the General Regulations.)

(f) **Pass with distinction**

In order to obtain the degree with distinction, 75% in the Mini-dissertation and a cumulative average of 75% in the core modules provided that a minimum pass mark of 60% in all the core modules are required.

V.7 Master of Science Option: Ruminant health (Code 08251012)
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Also consult the General Regulations. Students are required to confirm whether a module will be presented in any particular 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.

(a) **Requirement for admission**

Subject to the stipulations of the applicable General Regulations, a BVSc, a four-year BSc in Agriculture (Animal Science), Microbiology, Zoology or Entomology or a BSc(Hons) in Microbiology, Zoology or Entomology or an equivalent degree is required.

In certain cases, it remains the prerogative of the head of department to require, in addition to the entrance requirements already mentioned, the successful completion of an admissions test before registration. A student may also be required to pass a proficiency test in English (TOEFL) at an acceptable level.

(b) **Curriculum**

This degree programme underlines the major health and production considerations in domesticated ruminants. It caters for the needs of candidates who wish to extend their knowledge and skills that they have gained during their undergraduate training and aims to allow them to practise at a higher level.

The curriculum consists of compulsory modules as well as a mini-dissertation. It is primarily a web-based modular degree programme.

Master of Science Option: Ruminant health (Code 08251012)

[Department: Paraclinical Sciences]

Total credits required: 180

Duration: Minimum 1 year

Maximum 2 years

	Module	Name	Credits
Research	RUM 890	Mini-dissertation: Ruminant health	80
Core modules	BHH 801	Bovine herd health	40
	<i>and</i> RUM 801	Ruminant health	40
	<i>or</i> SSH 801	Small stock health	40
Elective modules	In consultation with the HED and study leader, choose module(s) to the credit value of at least 20		20

(c) **Conferment of degree**

The MSc degree is conferred by virtue of the successful completion of prescribed modules in the curriculum and a mini-dissertation.

Coursework: 60%; Mini-dissertation: 40%

(d) **Examination**

If a student fails a module, he/she will have to repeat the module the following year. A module cannot be repeated more than twice.

(e) **Mini-dissertation**

Consult the General Regulations.

On an appropriate topic depending on the field of interest of the student, a research project of limited scope must be undertaken and written in the format of a mini-dissertation to fulfil the requirements of the MSc. The research topic is determined in consultation with the supervisor and head of department and the research project must be approved according to Faculty guidelines.

Before or together with the mini-dissertation, a student must submit at least one draft article for publication in an acknowledged and accredited journal. The draft article must be based on the research for the mini-dissertation and must be acceptable to the supervisor and meet subsidy requirements. Proof of submission of the article from the relevant journal editorial office must be submitted together with the final bound mini-dissertation.

(f) **Pass with distinction**

In order to obtain the degree with distinction, 75% in the Mini-dissertation and a cumulative average of 75% in the core modules provided that a minimum pass mark of 60% in all the core modules are required.

V.8 Master of Science Option: Veterinary Epidemiology (Code 08251009)
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Also consult the General Regulations. Students are required to confirm whether a module will be presented in any particular 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.

(a) **Requirement for admission**

Subject to the stipulations of the applicable General Regulations, a BVSc, BScHons, four-year BSc in natural sciences or agriculture or an equivalent degree is required.

In certain cases, it remains the prerogative of the Head of Department to require, in addition to the entrance requirements already mentioned, the conduction of an interview and/or the successful completion of an admissions test before registration. Students must be proficient in English and may be required to pass a proficiency test prior to admission. Admission is also subject to the identification of a suitable research project and the availability of a supervisor. Prospective applicants should therefore make enquiries well in advance.

(b) **Curriculum**

This degree programme provides training in the principles of and methods used in veterinary epidemiology, including training in selected more specialised tools used in the discipline. It caters for the needs of candidates who wish to be trained as epidemiologists, health officers or researchers involved in the investigation and control of diseases in animal populations and who would like to gain relevant knowledge and develop specific technical skills.

The curriculum consists of compulsory and elective modules as well as a mini-dissertation. It is primarily a web-based modular degree programme.

At the discretion of the HOD and supervisor, a student may be granted exemption from the modules VRM 811 (Veterinary research methodology) and/or EPL 851 (Basic veterinary epidemiology) if equivalent module(s) have successfully been completed.

Master of Science Option: Veterinary Epidemiology (Code 08251009)
 [Department Production Animal Studies]

Total credits required: 240

Duration: Minimum 1 year
Maximum 2 years

	Module	Name	Credits
Research	EPL 890	Mini-dissertation: Veterinary epidemiology	120
Core modules	VRM 811	Veterinary research methodology	20
	EPL 851	Basic veterinary epidemiology	10
	EPL 852	Biostatistics in veterinary science	20
	EPL 853	Analytical veterinary epidemiology	20
	EPL 855	Animal health information management	5
	EPL 856	Scientific reasoning in veterinary epidemiology	5
Elective modules	In consultation with the HED and study leader, choose module(s) to the credit value of at least 40		40

(c) **Conferment of degree**

The MSc degree is conferred by virtue of the successful completion of prescribed modules in the curriculum and a mini-dissertation.
 Coursework: 50%; Mini-dissertation: 50%.

(d) **Examination**

If a student fails a module, he/she will have to repeat the module the following year.

(e) **Mini-dissertation**

Consult the General Regulations.

A research project of limited scope must be undertaken on an appropriate topic, depending on the field of interest of the student and the availability of a suitable supervisor, and written in the format of a mini-dissertation. The research topic is determined in consultation with the supervisor and head of department, and the research project must be approved according to Faculty guidelines.

Before or together with the mini-dissertation, a student must submit at least one draft article for publication in an accredited scientific journal, failing which the degree will not be conferred. The draft article must be based on the research for the mini-dissertation and must be acceptable to the supervisor and meet subsidy requirements.

(f) **Pass with distinction**

The degree is conferred with distinction on a student who has obtained at least 75% for the mini-dissertation and an cumulative average of at least 75% for the core and elective modules.

<p>V.9 Master of Science Option: Veterinary Reproduction (Code 08251010)</p>

Also consult the General Regulations. Students are required to confirm whether a module will be presented during a particular 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.

(a) **Requirements for admission**

Subject to stipulations of the applicable General Regulations, a BVSc, a four-year BSc in Agriculture (Animal Science), Zoology or an equivalent degree is required.

In certain cases, it remains the prerogative of the head of department to require, in addition to the entrance requirements already mentioned, the successful completion of an admissions test before registration. A student may also be required to pass of proficiency test in English (TOEFL) at an acceptable level.

Master of Science Option: Veterinary Reproduction (Code 08251010)

[Department: Production Animal Studies]

Total credits required: 180

**Duration: Minimum 1 year
Maximum 2 years**

	Module	Name	Credits
Research	GSK 891	Mini-dissertation	90
Core modules	GSK 801	Reproductive physiology	20
	GSK 802	Assisted reproduction	30
	GSK 803	Female infertility	20
	GSK 804	Male breeding soundness and andrology	20

The first objective of the degree programme is to provide each participant a strong theoretical grounding in those aspects of veterinary reproduction that are specifically of interest to him or her, whilst also having the opportunity to gain a wider perspective from interacting with other students doing the same programme but with different foci of interest. The second objective, which is as important as the first, is to let the student go through the scientific research process, from the formulation of a research question to reporting the research in a mini-dissertation and an article of sufficient merit to submit to an approved scientific journal.

The degree programme will be suitable for any veterinarian with an interest in reproduction and an interest in doing research in the field of reproduction, irrespective of the species in which his or her interest lies. The degree programme may also be suitable for non-veterinarians with similar interests but focused on those aspects of reproduction that are not of a strict veterinary nature, yet maintaining a focus on animal health.

(c) **Conferment of the degree**

The MSc degree is conferred by virtue of the successful completion of prescribed modules in the curriculum and a mini-dissertation.

Coursework: 50%; Mini-dissertation: 50%.

(d) **Examination**

A minimum examination mark of 50% is required to pass each of the modules. Instructions regarding requirements for semester, year or examination marks are published in the study guides, for the specific attention of candidates.

If a student fails a module, he (she) has to repeat the module the next time it is presented. A student may not sit for an examination more than twice in the same module on postgraduate level.

(e) **Mini-dissertation**

A mini-dissertation is undertaken on an appropriate topic depending on the field of interest of the student and research theme of the supervisor. A research project of

limited scope must be undertaken and written in the format of a mini-dissertation to fulfil the requirements of the MSc. The research topic is determined in consultation with the supervisor and the head of department, and the research project must be approved according to Faculty guidelines.

Before or together with the mini-dissertation, a student must submit at least one draft article for publication in an accredited journal, failing which the degree will not be conferred. The draft article must be based on the research for the mini-dissertation and must be acceptable to the supervisor and meet subsidy requirements.

(f) **Pass with distinction**

The degree is conferred with distinction on a student that has obtained at least 75% for the mini-dissertation and an cumulative average of at least 75% for the modules.

V.10 Master of Science
Option: Veterinary Public Health (Code 08251013)

Also consult the General Regulations. Students are required to confirm whether a module will be presented in any particular 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.

(a) **Requirement for admission**

Subject to the stipulations of the applicable General Regulations, a four-year scientific-based degree such as BScHons, BScAgric, a BVSc, BVMCh or an equivalent degree, is required.

A candidate with a completed BTech degree with a minimum of 60% in the broad area of specialisation. In certain cases, it remains the prerogative of the head of department to require, in addition to the entrance requirements already mentioned, the successful completion of additional coursework and/or an admissions test before registration. A student may be required to pass a proficiency test in English (TOEFL) at an acceptable level.

(b) **Curriculum**

Master of Science Option: Veterinary Public Health (Code 08251013)
 [Department Paraclinical Sciences]

Total credits required: 240

Duration: Minimum 1 year
Maximum 2 years

	Module	Name	Credits
Research	VPH 890	Mini-dissertation: Veterinary public health	80
Core modules	VRM 811	Research methodology	20
	EPL 851	Basic veterinary epidemiology	10
	VPH 881	Veterinary public health: Meat hygiene	40
	VPH 883	Veterinary public health: Veterinary milk hygiene	40
Elective modules	In consultation with the HED and study leader, choose module(s) to the credit value of at least 50 from the following list (and/or from other faculties):		50

AHE 801	Animal/Human/Ecosystem Health	30
AHE 805	Zoonoses	20
AHE 809	Policy, planning and legislation	20
AHE 810	Communication and management	20
EHM 870	Basis of environmental health	5
EHM 871	Health risk assessment	10
HCS 870	Project management for the health sector	10
HME 873	Monitoring and evaluation	15
QHR 870	Economic evaluation of disease control interventions	10
SCC 871	Communication in health	10
VPH 882	Veterinary public health: Poultry food hygiene	40
VPH 884	Veterinary public health: Environmental health and biosecurity	40

(c) **Conferment of degree**

The MSc degree is conferred by virtue of the successful completion of prescribed modules in the curriculum and a mini-dissertation.

Coursework: 70%; Mini-dissertation: 30%.

(d) **Examination**

A minimum examination mark of 50% is required to pass each of the modules. Instructions regarding requirements for semester, year or examination marks are published in the study guides, for the specific attention of candidates.

If a student fails a module, he (she) has to repeat the module the next time it is presented. A student may not sit for an examination more than twice in the same module on postgraduate level.

(e) **Mini-dissertation**

Also consult the General Regulations.

Candidates must submit a mini-dissertation s, which deals with an applied field of study within veterinary public health. The topic is determined in consultation with the head of department, and the research project that follows, must be approved according to Faculty guidelines.

The mini-dissertation is based on an applied research project or related research projects (which need not be original), planned and reported by the candidate. (Assistance with statistical procession, applied specialised procedures, etc. is allowed, but must be acknowledged). The candidate may use appropriate research done previously, to add to the writing of the mini-dissertation.

Previous, related publications by the candidate may be bound with the mini-dissertation, but may not substitute the complete text of the mini-dissertation. Publications, which are submitted, must be rounded off by means of an extensive introduction, materials, and information concerning methods and a discussion of the results. An external examiner, who may not necessarily attend the final examination in the special field of study, will evaluate the mini-dissertation.

Before or together with the mini-dissertation, a draft article based on the mini-dissertation must be prepared for publication in an acknowledged journal, failing

which the degree will not be conferred. The draft article must be acceptable to the supervisor and must comply with the requirements for subsidy (see applicable Faculty rules).

(f) **Pass with distinction**

The degree is conferred with distinction on a student that has obtained at least 75% for the mini-dissertation and an cumulative average of at least 75% for the modules.

IV. DOCTORATES

V.11 Doctor of Philosophy [PhD]

Also consult the General Regulations.

(a) **Admission requirements**

Subject to the stipulations of the applicable General Regulations, a candidate must hold an applicable master's degree to qualify for admission to the study for the PhD degree.

A candidate with an MTech degree who has obtained at least 60% for the MTech dissertation may be considered for admission if approved by Senate. Since the PhD is clearly more demanding of a wider (philosophical) scientific background, the selection of candidates for the PhD degree must be stringent, and could include outside evaluation of the dissertation work by nominees selected by the head of department and approved by the Faculty Postgraduate Committee, evidence of peer-reviewed publication, appropriate work-related experience (i.e. in a research environment) and, where necessary, formal coursework to address shortcomings in the academic background.

It remains the prerogative of the head of department to require an admissions test prior to registration for the degree study, in addition to the regulatory requirements. A pass in a proficiency test in English (TOEFL) at an acceptable level may also be required, especially in the case of international candidates.

(b) **Field of study**

Total number of SAQA credits: 360

The research topic will be determined in consultation with the head of department, following which the research projects will be approved in terms of Faculty guidelines and the General Regulations. Each candidate must satisfy the head of department that he or she is working at an institution with the necessary facilities, to enable him or her to complete the work required for the degree satisfactorily.

The PhD degree programme is offered in the following disciplines:

- PhD (Veterinary Science) Code: 08261002**
[Department: Anatomy and Physiology]

Total credits required: 360 Duration: Minimum 2 years Maximum 6 years

	Module	Name	Credits
Research	VWE 902	Thesis: Anatomy and physiology Oral examination	360

2. **PhD (Veterinary Science) Code: 08261003**
 [Department: Companion Animal Clinical Studies]

Total credits required: 360 **Duration: Minimum 2 years Maximum 6 years**

	Module	Name	Credits
Research	VWE 903	Thesis: Companion animal clinical studies Oral examination	360

3. **PhD (Veterinary Science) Code: 08261004**
 [Department: Paraclinical Sciences]

Total credits required: 360 **Duration: Minimum 2 years Maximum 6 years**

	Module	Name	Credits
Research	VWE 904	Thesis: Paraclinical sciences Oral examination	360

4. **PhD (Veterinary Science)** **Code: 08261005**
 [Department: Production Animal Studies]

Total credits required: 360 **Duration: Minimum 2 years Maximum 6 years**

	Module	Name	Credits
Research	VWE 905	Thesis: Production animal studies Oral examination	360

5. **PhD (Veterinary Science) Code: 08260271**
 [Department: Veterinary Tropical Diseases]

Total credits required: 360 **Duration: Minimum 2 years Maximum 6 years**

	Module	Name	Credits
Research	VWE 901	Thesis: Veterinary tropical diseases Oral examination	360

- (c) **Duration**
 Consult the applicable General Regulation.

- (d) **Conferment of degree**
 The PhD degree is conferred by virtue of the successful completion of a thesis and an oral examination. Consult the General Regulations.)
 Before or together with the thesis a student must submit at least one article for publication in an acknowledged journal, failing which the degree will not be conferred. The article must be based on the research for the thesis and must be acceptable to the supervisor and meet subsidy requirements. The student is required to submit proof of the receipt of the article by an accredited journal to the Head: Student Administration. Consult the General Regulations. It is also required from a student to submit a CV together with the examination draft of his/her thesis.

Also consult the General Regulations with regard to the submission and technical editing of the thesis.

V.12 Doctor of Veterinary Science [DVSc]

The DVSc degree is conferred by virtue of publications (consult the applicable General Regulation).

	Module code	Thesis	Degree Code	Department
1.	VWE 902	Anatomy and physiology	08260002	Anatomy and physiology
2.	VWE 903	Companion animal clinical studies	08260003	Companion animal clinical studies
3.	VWE 905	Production animal studies	08260004	Production animal studies
4.	VWE 904	Paraclinical sciences	08260005	Paraclinical sciences
5.	VWE 901	Veterinary tropical diseases	08260006	Veterinary tropical diseases

VI. UNIVERSITY DIPLOMA

**V.13 University Diploma in Veterinary Nursing [DipVetNurs]
(Code 08120002)**

This programme may be phased out in due time and be replaced by a three-year degree programme pending approval and accreditation.

Check Faculty website for notification in this regard.

The University retains the right not to admit students in the old programme as from 2015.

(a) Requirements for admission

- (i) A candidate must be in possession of a National Senior Certificate (NSC) and must have passed the following Grade 12 subjects at the level indicated:

English at home language/first additional language level	4 (50-59%)
Life Sciences	4 (50-59%)
Mathematics	4 (50-59%)
Physical Sciences	4 (50-59%)
Alternative subject 1	4 (50-59%)
Alternative subject 2	4 (50-59%)

A minimum Admission Point Score (APS) of 24 will be required [calculated from the achievement level obtained in English, Life Sciences, Mathematics and Physical Sciences and the two best alternative subjects (second language and one other)]

(Although Life Orientation is excluded from the calculation of the required APS, a minimum score of 4 (50-59%) must be achieved.)

School-leavers will be provisionally selected on the basis of their Grade 11 and NBT results; selection will be confirmed if the Grade 12 APS is not > 3 points below the Grade 11 APS and still above the minimum of 24.

- (ii) Students are admitted annually after selection according to the approved procedure.

- (iii) Each student must apply, immediately after first admission, to the Registrar of the South African Veterinary Council for registration as a student in veterinary nursing. Registration is compulsory and must be renewed annually for the duration of the study.
- (iv) After the diploma has been awarded, diplomates are required to register with the South African Veterinary Council as veterinary nurses before they may be employed in South Africa in this capacity.
- (b) **Duration of study**
Two academic years of full-time study.
- (c) **Admission to examinations**
The stipulations of General Regulation G.10.1 regarding satisfactory attendance, preparation, as well as the payment of class fees, apply to examination, promotion and attendance modules. In addition, attendance at all the prescribed lectures, practicals, clinics (including holiday clinics) and excursions is compulsory. Absence with good reason from any of these must be substantiated by a medical certificate or other acceptable proof, failing which admission to the examination could be refused. Failure to comply with General Regulation G.10.1 will also result in examination refusal.
- (d) **Pass requirements in modules and supplementary examinations**
- (i) In order to pass an examination module, a student must obtain a subminimum of 40% in the examination and a final mark of at least 50%. In promotion modules, a semester or year mark of at least 50% is required to pass.
 - (ii) The theoretical part (i.e. written and/or oral) and the practical part (where applicable) of the examinations contribute an equal amount (i.e. 50:50) in the calculation of the final mark.
 - (iii) If the examination includes a practical as well as a theoretical part, a subminimum of 40% is required in each section.
 - (iv) An examination mark of 50% is required to pass a supplementary examination. The semester or year mark is not taken into calculation.
 - (v) Supplementary examinations may be granted to a student in an unlimited number of modules in the first year of study, but not in the second year of study.
 - (vi) A student must pass all the modules of the first year of study in order to be promoted to the second year of study. A single further examination will, however, be allowed for students who have **only one** of the following modules outstanding at the end of the academic year, provided the final mark is at least 40%:
 - AVP 111 General nursing
 - FAK 120 Pharmacology
 - GSV 120 Reproductive nursing
 - LTG 120 Laboratory technique
 - MBI 111 Microbiology
 - MVP 120 Medical nursing
 - PAR 120 Parasitology
 - TPR 120 Theatre practice
 - VET 110 Veterinary ethology

(e) **Promotion to the second year of study**

A student, who fails one or more modules in the first year of study, is subject to selection once again. A limited number of four students will be re-admitted to the first year of study. If re-admitted, the student has to repeat the first year of study. Students may apply for exemption from the examination in modules already passed, provided that a year or semester mark of at least 50% is obtained in the relevant modules in the year during which first-year studies are repeated and the requirements of V.13 (c) have been met. For modules passed with a final mark of 65% or more, full exemption of lectures and examinations is granted.

(f) **Pass with distinction**

The diploma is awarded with distinction to a student who has obtained at least 60% in each module throughout the programme, and an average of at least 75% in the final year.

(g) **General**

In addition to the stipulations of General Regulations, G.3.2(b), a student will not be allowed to repeat the same year of study twice.

(h) A student who has to discontinue his or her studies in terms of stipulations (e) and (g) above, may request the Dean in writing to consider his or her application for re-admission to the Faculty in terms of prescribed procedures as stipulated in *Application of General Regulation G.3* and *Faculty Regulation V.1.c(ix)* in the *Faculty of Veterinary Science, University of Pretoria* as approved by the Faculty Board.

(i) **Curriculum**

Total number of SAQA credits: 292

First year of study

Module	Code	Name	Credits
Core	ANG 104	Anatomy	24
	AVP 111	General nursing	14
	FAK 120	Pharmacology	7
	FSL 104	Physiology	22
	LTG 120	Laboratory technique	11
	MBI 111	Microbiology	10
	PAR 120	Parasitology	8
	VET 110	Veterinary ethology	16
Total			[112]

Module	Code	Name	Credits
Promotional	GSV 120	Reproductive nursing	5
	MVP 120	Medical nursing	6
	TPR 120	Theatre practice	6
Total			[17]

(i) **Clinical skills training**

Clinical skills training must be completed at various clinics of the Veterinary Academic Hospital throughout the year and during the December holidays, and also on a rotation basis at Outpatients, Isolation Ward and Intensive Care Unit after-hours and over weekends.

(ii) **Supplementary examinations**

Subject to the provisions of Regulation V.13 (d)(i), students who obtain a final mark of between 40% and 49% in General nursing 111, Microbiology 111 or Veterinary ethology 110, may be admitted to a supplementary examination immediately after the first semester examinations. The provisions of Regulation V.13 (d)(v) also apply.

Second year of study

Module	Code	Name	Credits
Core	CVP 200	Surgical nursing	38
	GSV 200	Reproductive nursing	11
	MVP 200	Medical nursing	74
	NAR 200	Anaesthesiology	16
	RAV 200	Radiography	12
	TPR 200	Theatre practice	12
Total			[163]

(i) **Clinical skills training**

Clinical skills training must be completed in various clinics of the Veterinary Academic Hospital. Students also have to work on a rotation basis at Outpatients, in the Isolation Ward and the Intensive Care Unit after hours and over weekends and holidays.

After-hour duties are also required in the Equine Clinic, Ambulatory Services and the Reproduction Clinic.

Students are also required to gain experience at the following institutions for two weeks each: an approved veterinary institute, private practice or clinic of their own choice at the Veterinary Academic Hospital. Additional rotations must be done at the Veterinary Academic Hospital during the April holidays.

(ii) **Supplementary examinations**

A student in the final year of study may be granted a maximum of two supplementary examinations

A head of department may require from a student who has been admitted to a supplementary examination, to do additional prescribed work for a specified period of time before he or she may take the supplementary examination as approved by the Dean.

(iii) **Special examination**

A student who has failed one or two modules and who has not been admitted to a supplementary examination, or who fails the supplementary examination(s), may be allowed to take a special examination after having worked full-time in the department/s concerned for a period determined by the head/s of department and with the Dean's approval. If he or she fails the latter, the Dean will determine when a further examination may be taken.

(iv) **Repetition of the final year of study**

A student who has failed more than two modules at the time of the Examination Commission meeting, must repeat the last two semesters of the curriculum with due cognisance of rule V.13 (e), unless the Dean decides otherwise.

(v) **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.

Alphabetical list of modules in the Faculty of Veterinary Science

= Concurrent registration

() = Examination admission

dpw = discussions per week

GS = combined (final) mark (semester/year mark plus examination mark) of at least 40% - 49%

cpw = clinical per week

hpw = hours per week

LP = Lecturer's permission

lpw = lectures per week

opw = other per week

pps = practicals per semester

ppw = practicals per week

ppy = practicals per year

spw = seminars per week

TDH = Permission by head of department

tpw = tutorials per week

wbppw = web-based period per week

AHE 801 Animal/Human/Ecosystem Health 801

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 30

Module content:

The objective of this module is to give the learner a multidisciplinary view (One Health) of the concepts and principles of integrated livestock and wildlife health and management in the tropics. There will be a special focus on understanding the relationship between ecosystem health and infectious/parasitic diseases of animals and humans (zoonoses) and ecosystem health in order to improve disease control policies, ecosystem sustainability, food security and rural development.

AHE 803 Disease surveillance and laboratory diagnostics 803

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 25

Module content:

This module comprises two study units: disease surveillance and laboratory diagnostics. The disease surveillance study unit deals with the concepts and principles of terrestrial animal (livestock and wildlife) health surveillance; including the design; implementation and evaluation of surveillance system; the data sources; tools and methods available to perform effective surveillance; and the evaluation and analysis of surveillance data. The laboratory diagnostics study unit provides focused training in the concepts and principles of field and laboratory diagnosis of infectious and parasitic diseases of livestock and wildlife including aspects of specimen collection and shipment, interpretation of laboratory results and basic laboratory management.

AHE 804 High impact diseases 804

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 20

Module content:

The objective of this module is to give the learner an overview of the concepts and principles of high impact contagious and vector-borne infectious and parasitic diseases of livestock and wildlife that have the potential of rapid spread (irrespective of international borders) , causing serious socioeconomic and possibly public health consequences, impacting on international trade and requiring reporting to the OIE.

AHE 805 Zoonoses 805

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 20

Module content:

This module deals with basic concepts and principles of zoonoses with a clear focus on wildlife/livestock/human interactions. Key drivers, contributing underlying factors as well as impacts of zoonoses will be investigated against the background of socioeconomic determinants, the environment, animal husbandry practices; integrated intervention tools and strategies; integrated medical and veterinary data collection, cultural perceptions and advocacy and policy development.

AHE 806 Emerging and re-emerging diseases 806

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 15

Module content:

This module deals with the concepts and principles of the drivers of emerging and re-emerging diseases including the presence of wildlife reservoirs, interactions at the livestock/wildlife/human interface, changing agricultural practices, climate change and collapsing veterinary services in some parts of the world.

AHE 807 Animal health management 807

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 30

Module content:

The objective of this module is to give the learner an overview of the general principles of animal health management including control/eradication of important infectious and parasitic diseases of livestock and wildlife with special reference to sub-Saharan Africa.

AHE 808 Marketing and trade 808

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 30

Module content:

This module deals with the concepts and principles of trade and marketing of animal (livestock and wildlife) commodities and products including economic principles; livestock supply chains, marketing channels and competitiveness; international standard-setting bodies; risks associated with commodities and products; meeting sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) standards; biological safety and animal production (value) chains; traceability requirements; and auditing and certification.

AHE 809 Policy, planning and legislation 809

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 20

Module content:

This module deals briefly with the concepts and principles of animal health policy formulation in the context of livestock/wildlife/human interactions; trade in animals and their products; food safety and zoonotic diseases; and the management alternatives for African transboundary (high impact) diseases.

AHE 810 Communication and management 810

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 20

Module content:

The primary objective of this module is to equip managers/decision-makers in particular with the necessary communication skills to address not only the public but also international audiences or panels. It will also deal with basic principles of project management (eg scope, stakeholders, time management, budgets and risk analysis) as well as basic principles of financial management (eg statements, financing decisions, capital budgeting, working capital management).

AHE 890 Mini-dissertation 890

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Year

Language of tuition: English

Credits: 80

Module content:

A mini-dissertation must be delivered on an appropriate topic depending on the field of interest of the student. A research project of limited scope must be undertaken and written in the format of a mini-dissertation to fulfil the requirements of the MSc. The research topic is determined in consultation with the supervisor and head of department and the research project must be approved according to Faculty guidelines. Before or together with the mini-dissertation, a student must submit at least one draft article for publication in an acknowledged journal, failing which the degree will not be conferred. The draft article must be based on the research for the mini-dissertation and must be acceptable to the supervisor and meet subsidy requirements.

ANG 104 Anatomy 104

Academic organisation: Anatomy and Physiology

Contact time: Block 1: 4 lpw Block 1: 5 demonstrations per week Block 2: 1 demonstration per week Block 2: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Basic anatomy, histology and embryology of the dog, including applicable comparative anatomy of the horse and ruminant. Offered for DipVetNursing students.

ANG 703 Anatomy 703

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 32

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.

ANG 705 Anatomy 705

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 32

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.

ANG 774 Anatomy 774

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 30

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.

ANV 420 Anaesthesiology 420

Academic organisation: Companion Animal Clinical Studies

Contact time: 3 lpw 3pps

Period of presentation: Semester 2

Language of tuition: English

Credits: 8

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.

ANV 771 Anaesthesiology 771

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 30

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.

ANV 800 Anaesthesiology 800

Academic organisation: Companion Animal Clinical Studies

Contact time: 0.5 spw 5 dpw

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Advanced theoretical and practical and experiential training in the administration of local and general anaesthetics on a species-orientated basis. The module covers the structure and functioning of inhalation anaesthesia and monitor apparatus, the latest use of total intravenous anaesthetic techniques, positive pressure ventilation, peripheral muscle relaxants and the techniques and equipment employed for the immobilisation of game. Theoretical training includes the attendance of postgraduate seminars in Anaesthesiology at the School of Medicine.

ANV 890 Mini-dissertation: Anaesthesiology 890

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

AVP 111 General nursing 111

Academic organisation: Production Animal Studies

Contact time: 7.5 ppw

Period of presentation: Semester 1

Language of tuition: English

Credits: 14

Module content:

Professional ethics, human relations, responsibilities towards the employer, the patient and the clients. General safety aspects and preventive measures during hospitalisation, nursing and treatment of patients. Hygiene and maintenance of the hospital, apparatus and treatment of patients. Secure storage of medicines, secure administration and record-keeping of medicines, monitoring patients and important reporting to the veterinary surgeon, using correct veterinary terminology. Arrangements regarding transportation of animals and basic wound dressing.

BHH 801 Bovine herd health 801

Academic organisation: Production Animal Studies

Prerequisite: A BVSc, a four year BSc in Agriculture (Animal Science), Microbiology, Zoology or an equivalent degree

Period of presentation: Year

Language of tuition: English

Credits: 40

Module content:

The primary aim of this module is to provide the candidate with the skills and competence to promote the health and production efficiency of cattle operations (dairy, beef and feedlots). The module will enable students to integrate and apply knowledge so that health and production can be monitored and problems can be identified and solved on a herd basis. The module content will be based on advanced theoretical training in bovine herd health with emphasis on principles of herd health and production programmes, animal health economics, monitoring dairy herd health and production (applied nutrition, fertility, udder health, foot health, general cow health, calves and replacement heifers), monitoring the health and performance of beef cow calf enterprises (resource base, forage and beef cow-calf stock flow, applied nutrition, fertility, young stock, integrated resource, health and management program), and beef feedlots.

BHP 510 Bovine health and production 510

Academic organisation: Production Animal Studies

Contact time: 9 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 25

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.

BHP 650 Applied bovine health and production 650

Academic organisation: Production Animal Studies

Contact time: 7.9 ppw

Period of presentation: Year

Language of tuition: English

Credits: 43

Module content:

Practical tuition under supervision in the diagnosis, treatment and control of diseases of cattle. Includes tuition during after-hours, weekends and vacations.

BHP 800 Bovine health and production 800

Academic organisation: Production Animal Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Specialist training with regard to the organ, metabolic and deficiency diseases of bovinds. Pathophysiology, diagnostic and treatment methods are emphasised. Integration and application of knowledge of health and production problems on a herd basis, evaluation of the health status and production effectiveness of herds in a holistic and cost-effective way within a wide spectrum of dairy and beef cattle farming systems and feedlots. Applied nutrition of cattle.

BKG 890 Mini-dissertation: Cattle herd health 890

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

CHV 703 Surgery: Small animals 703

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 33

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.

CHV 704 Surgery: Horses 704

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 33

Module content:

Advanced theoretical study of equine surgery.

CHV 705 Surgery: Small Animals 705

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 33

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.

CHV 803 Surgery 803

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Advanced theoretical, practical and experiential module in small animal surgery.

CHV 804 Surgery 804

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Advanced theoretical, practical and experiential module in equine surgery.

CHV 892 Mini-dissertation: Small animal surgery 892

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

CHV 894 Mini-dissertation: Equine surgery 894

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

CLP 410 Clinical pathology 410

Academic organisation: Companion Animal Clinical Studies

Contact time: 3 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 7

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.

CVP 200 Surgical nursing 200

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 3: 6 lpw Block 4: 200 clinic sessions

Period of presentation: Year

Language of tuition: English

Credits: 38

Module content:

The classification, complications and treatment of inflammation, wounds, bleeding, fractures and dislocation. Healing of wounds. Healing of different types of tissue. Surgical

terminology. Examining a traumatised patient. Ocular emergencies. General surgical conditions and procedures of the thorax, abdomen, head and neck, skin, vertebral column and motor system. Nutrition of surgical patients. Surgical nursing of companion and production animals. Bandaging large and small animals. Dental hygiene. Physiotherapy. Pre-operative and post-operative nursing. Lectures offered by various departments.

DIM 400 Diagnostic imaging 400

Academic organisation: Companion Animal Clinical Studies

Contact time: 27 ppy 3 lpw (Sem1) 2 lpw (Sem2)

Period of presentation: Year

Language of tuition: English

Credits: 17

Module content:

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

DIM 781 Radiology: Dogs and cats 781

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 39

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.

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

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 30

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.

DIM 783 Radiology: Horses 783

Academic organisation: Companion Animal Clinical Studies

Contact time: 1 dpw 1 lpw 1 spw

Period of presentation: Year

Language of tuition: English

Credits: 33

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.

DIM 784 Non-radiological diagnostic imaging of horses 784

Academic organisation: Companion Animal Clinical Studies

Contact time: 1 ppw 1 spw

Period of presentation: Year

Language of tuition: English

Credits: 33

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.

DIM 870 Diagnostic imaging 870

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Advanced study of small and large animal radiography, radiology, ultrasonography, scintigraphy, magnetic resonance imaging and computed tomography: with a view to specialisation. Literature study and a minimum of 90 weeks practical work are also required.

DIM 890 Mini-dissertation: Diagnostic imaging 890

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

DPT 400 Diagnostic pathology 400

Academic organisation: Paraclinical Sciences

Contact time: 2 lpw S1 2 lpw S2 30 ppy

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Planning and conducting necropsies; making a diagnosis; fatal conditions and diseases of dogs, cats, pigs, poultry and horses.

DPT 510 Diagnostic pathology 510

Academic organisation: Paraclinical Sciences

Contact time: 3 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 9

Module content:

Application of practical procedures in post mortem techniques.

ECS 601 Equine clinical studies 601

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 1: 8 lpw Block 2: 9 lpw

Period of presentation: Year

Language of tuition: English

Credits: 40

Module content:

The diagnosis, treatment and control of diseases of the horse. Integration of aspects of clinical veterinary science, including components of contagious and parasitic diseases, clinical diagnostics, clinical pathology, diagnostic imaging, therapeutics, medicine, surgery, reproduction and pathology. Lectures are offered by different departments.

ECS 650 Applied equine clinical studies 650

Academic organisation: Companion Animal Clinical Studies

Contact time: 9.9 ppw

Period of presentation: Year

Language of tuition: English

Credits: 42

Module content:

Practical instruction on module matter dealt with in Equine clinical studies 300.

EPL 510 Veterinary epidemiology 510

Academic organisation: Production Animal Studies

Contact time: 3 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 10

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.

EPL 851 Basic veterinary epidemiology 851

Academic organisation: Production Animal Studies

Prerequisite: A BVSc or equivalent qualification. Non-veterinary graduates will be considered under exceptional circumstances. Recommended: Grade 12 Mathematics.

Contact time: 1 opw 1 wbpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 10

Module content:

An introductory module in veterinary epidemiology designed to provide a sound foundation in epidemiology that can be applied in practice and upon which further studies can be built. The module covers aspects of population medicine, disease outbreak investigation, clinical epidemiology, experimental studies, observational studies, surveys, basic analytical tools and diagnostic tests

EPL 852 Biostatistics in veterinary science 852

Academic organisation: Production Animal Studies

Prerequisite: BVSc or equivalent qualification and Grade 12 Mathematics.

Contact time: 2 spw

Period of presentation: Semester 1

Language of tuition: English

Credits: 20

Module content:

This module provides the student with a foundation in basic statistical methods commonly used by postgraduate students in veterinary science. It covers statistical building blocks, confidence intervals, hypothesis testing, chi-square procedures, regression and correlation, paired and pooled t-tests, analysis of variance and non-parametric tests.

EPL 853 Analytical veterinary epidemiology 853

Academic organisation: Production Animal Studies

Prerequisite: EPL 851 and EPL 852

Contact time: 2 spw

Period of presentation: Semester 2

Language of tuition: English

Credits: 20

Module content:

This module provides the student with further knowledge and skills in veterinary epidemiology and an introduction to certain more advanced statistical methods commonly used in veterinary science, including adjustment for confounding, multiple linear regression, logistic regression and survival analysis, and will provide the basis for further studies and research involving these techniques.

EPL 855 Animal health information management 855

Academic organisation: Production Animal Studies

Contact time: 1 wbpw

Period of presentation: Semester 1 or Semester 2

Language of tuition: English

Credits: 5

Module content:

This module covers the principles and practice of the collection, entry, storage, management and processing of animal health-related data. It provides the knowledge necessary to be able to effectively work with data in veterinary epidemiology and animal health research.

EPL 856 Scientific reasoning in veterinary epidemiology 856

Academic organisation: Production Animal Studies

Contact time: 1 wbpw

Period of presentation: Year

Language of tuition: English

Credits: 5

Module content:

This module covers, using practical examples, the processes of scientific reasoning and critical thinking applicable to veterinary epidemiology, and equips the student to use clear lines of reasoning in developing and testing hypotheses and making inferences, and to be able to critically evaluate information presented in the literature.

EPL 890 Mini-dissertation: Veterinary epidemiology 890

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 120

Module content:

Mini-dissertation

EQM 410 Equine medicine and surgery 410

Academic organisation: Companion Animal Clinical Studies

Contact time: 7 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 14

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.

FAK 120 Pharmacology 120

Academic organisation: Paraclinical Sciences

Contact time: 4 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 7

Module content:

Fundamental principles of Pharmacology required by veterinary nurses. The basic study of groups of functional, systemic and chemotherapeutic drugs used in domestic animals. Regulatory requirements, control and use of veterinary medicines by veterinary nurses.

FAK 800 Pharmacology 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 344

Module content:

Advanced theoretical, practical and experiential training in clinical or industrial pharmacology.

FAK 876 Advanced fundamentals of pharmacology 876

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 30

Module content:

Scope and historical development of veterinary pharmacology. Veterinary pharmaceutics and formulation theory. Pharmacokinetic theory, pharmacokinetic analysis and modelling. Bioequivalence theory and evaluation. Physicochemical and molecular basis of drug action. Dose response and calculation of dose response parameters. Pharmacological modulation of organ and body functions. Molecular basis of action and pharmacological effects of chemotherapeutic agents. Adverse drug reactions, interactions and pharmacovigilance. Comparative species pharmacology, pharmacogenomics and pharmacogenetics. Background on complementary medicines. Fundamentals of pharmacological research.

FAK 877 Clinical pharmacology 877

Academic organisation: Paraclinical Sciences

Contact time: 1 lpw

Period of presentation: Year

Language of tuition: English

Credits: 30

Module content:

Advanced veterinary pharmacology including pharmaceutics, pharmacokinetics, pharmacotherapeutics and pharmacodynamics. Clinical pharmacology relevant to a selected

domesticated animal species in the area of specialization (capita selecta), including species-specific therapeutic objectives and rational pharmacotherapy; specialised drug therapy pertaining to that species; drug use and control and adverse drug reactions.

FAK 895 Mini-dissertation: Pharmacology 895

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 126

FSL 104 Physiology 104

Academic organisation: Anatomy and Physiology

Contact time: Block 1: 3 ppw Block 1: 8 lpw Block 2: 3 lpw Block 2: 3 ppw

Period of presentation: Year

Language of tuition: English

Credits: 22

Module content:

An elementary module in the physiology and physiological chemistry of the most important physical systems of domestic animals.

FSL 787 Physiology 787

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 30

Module content:

Pathophysiology of clinical syndromes.

FSL 788 Physiology 788

Academic organisation: Anatomy and Physiology

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 30

Module content:

Physiology of a selected topic (capita selecta).

GEN 702 Small animal medicine 702

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 33

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.

GEN 703 Equine medicine 703

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 40

Module content:

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

GEN 707 Small animal medicine 707

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 37

Module content:

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

GEN 709 Small animal behavioural medicine 709

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 30

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.

GEN 802 Equine medicine 802

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Advanced training in organ, metabolic and deficiency diseases of equines. Pathophysiology, diagnostic and treatment methods are emphasised.

GEN 803 Small animal medicine 803

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Advanced theoretical and practical training in organ, metabolic and deficiency diseases of small animals. Pathophysiology, diagnostic and treatment methods are emphasised.

GEN 891 Mini-dissertation: Bovine medicine 891

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 115

GEN 892 Mini-dissertation: Equine medicine 892

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

GEN 893 Mini-dissertation: Small animal medicine 893

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

GNS 320 General surgery 320

Academic organisation: Companion Animal Clinical Studies

Contact time: 1 ppw 3 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 7

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.

GOP 300 General and organ pathology 300

Academic organisation: Paraclinical Sciences

Contact time: 7 lpw

Period of presentation: Year

Language of tuition: English

Credits: 30

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.

GSK 800 Reproduction 800

Academic organisation: Production Animal Studies

Prerequisite: Modules GSK 801 to GSK 804 are prerequisites for GSK 800 and they may be done concurrently with the GSK 800 module.

Contact time: Sixty weeks of experiential training under supervision, divided over 2 to 3 years.

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 366

Module content:

This module offers broad-based, in-depth experiential training that may be theoretical and practical on animal reproduction and is a requirement for the MMedVet (Reproduction) degree. Reproduction, as taught during the undergraduate veterinary curriculum and modules GSK 801 to GSK 804 serves as basis for advanced training in obstetrics, gynaecology, andrology and assisted reproduction of animals.

GSK 801 Reproductive physiology 801

Academic organisation: Production Animal Studies

Contact time: 10 Se3minars over a period of 2 weeks

Period of presentation: Quarter 1

Language of tuition: English

Credits: 20

Module content:

This module will provide advanced theoretical study in and critical appraisal of the principles, concepts, current application and potential developments in selected aspects of reproductive physiology of animals.

GSK 802 Assisted reproduction 802

Academic organisation: Production Animal Studies

Contact time: 10 Seminars over a period of 2 weeks

Period of presentation: Quarter 2

Language of tuition: English

Credits: 30

Module content:

This module will provide advanced theoretical study in and critical appraisal of the principles, concepts, current applications and potential developments in selected aspects of assisted reproduction in animals.

GSK 803 Female infertility 803

Academic organisation: Production Animal Studies

Contact time: 10 Seminars over a period of 2 weeks

Period of presentation: Quarter 3

Language of tuition: English

Credits: 20

Module content:

This module will provide advanced theoretical study in and critical appraisal of the principles, concepts, current applications and potential developments pertaining to selected aspects of infertility in female animals.

GSK 804 Male breeding soundness and andrology 804

Academic organisation: Production Animal Studies

Contact time: 10 Seminars over a period of 2 weeks

Period of presentation: Quarter 4

Language of tuition: English

Credits: 20

Module content:

This module will provide advanced theoretical study in and critical appraisal of the principles, concepts, current applications and potential developments pertaining to selected aspects of breeding soundness and andrology in male animals.

GSK 805 Reproduction capita selecta 805

Academic organisation: Production Animal Studies

Contact time: 10 Seminars over a period of 2 weeks, that may be spread over two calendar years

Period of presentation: Year

Language of tuition: English

Credits: 20

Module content:

This module includes selected aspects from two or more of the modules GSK 801 to GSK 804. The purpose of this module is to provide Masters degree students doing a course other than the MSc Option: Veterinary Reproduction or the MMedVet (Gyn) the opportunity to do an elective module in a limited selection of aspects of reproduction. Students planning to do the GSK805 module must discuss their studies with the coordinators of Modules GSK 801 to GSK 804 before registering for the module to allow those coordinators to prescribe to the student which of the modules the student should participate in, what aspects of the relevant modules the student should study, and when those modules will be presented. Depending on which of the GSK 801 to GSK 804 modules the student should do selected aspects of the GSK 805 Reproduction *capita selecta* module may run over one or two calendar years.

GSK 891 Mini-dissertation 891

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

Module content:

The aim of the module is to let the student experience and work through the scientific research process, starting with the formulation of a research question in the field of animal reproduction and ending with reporting the research in a mini-dissertation and an article of sufficient merit to submit to an approved scientific journal.

GSV 120 Reproductive nursing 120

Academic organisation: Production Animal Studies

Contact time: Block 2: 2 lpw Block 2: 5 ppw

Period of presentation: Semester 2

Language of tuition: English

Credits: 5

Module content:

Elementary reproductive physiology and endocrinology of male and female domestic animals. The oestrus cycle. Artificial insemination of the cow and bitch. Impregnation. The physiology of gestation and care of the animal during gestation. Methods of gestation diagnosis. The normal process of parturition and care of the animal during parturition. Elementary obstetrics. The puerperium. Care of the new-born. Elementary principles of collection, examination and storage of semen. The principles of oestrus control. Sterility of male and female animals. Reproductive emergencies (including administration of epidural anaesthetic and correction of simple abnormal presentations). The principles of herd health programmes. Laboratory techniques regarding diagnosis and reproductive anomalies.

GSV 200 Reproductive nursing 200

Academic organisation: Production Animal Studies

Contact time: Block 4: 80 clinic sessions

Period of presentation: Semester 2

Language of tuition: English

Credits: 11

Module content:

Duties in the reproductive clinic. Scheduled practical training and participation in herd health programmes.

HIS 800 Histology 800

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 20

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.

IVD 300 Introductory veterinary diagnostics 300

Academic organisation: Production Animal Studies

Contact time: S1: 3 lpw 5 pps; S2: 2 lpw

Period of presentation: Year

Language of tuition: English

Credits: 28

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: Using clinical cases, the integrated homeostatic responses to disease/insult involving all the body systems. The aim of this section of IVD 300 is therefore to build on basic physiological principles and to explain changes under abnormal situations.

Veterinary research focus: IVD 300 also includes 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.

KDK 800 Clinical laboratory diagnostics 800

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Advanced training in veterinary clinical laboratory diagnostics including theoretical as well as practical knowledge of clinical biochemistry, clinical endocrinology, haematology, cytology, capita selecta aspects of: diagnostic bacteriology; diagnostic virology; diagnostic immunology; diagnostic protozoology; diagnostic toxicology and diagnostic parasitology; quality control; applied biometry; electronics/optics of laboratory equipment, and computer use.

KDK 890 Mini-dissertation: Clinical laboratory diagnostics 890

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

KKS 800 Small stock herd health 800

Academic organisation: Production Animal Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Specialised training based on farm visits, discussions, seminars and case studies. Specialised integration and application of knowledge so that health and production problems can be identified and solved on a herd basis, and health status and production effectiveness of small stock herds can be raised from a holistic and cost-effective viewpoint, within a broad spectrum of sheep and goat-farming systems and feedlots.

KKS 890 Mini-dissertation: Small stock herd health 890

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

KPA 701 Clinical pathology 701

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

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

KPA 702 Clinical pathology 702

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 31

Module content:

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

LTG 120 Laboratory techniques 120

Academic organisation: Companion Animal Clinical Studies

Contact time: Semester 2: 6 lpw

Period of presentation: Semester 2

Language of instruction: English

Credits: 11

Module content:

Specimen collection and dispatching, maintenance and handling of laboratory equipment, quality control, record keeping, basic haematology, elements of transfusion medicine, urinalysis, coprology, basic cytological principles, aspects of clinical chemistry.

MBI 111 Microbiology 111

Academic organisation: Veterinary Tropical Diseases

Contact time: 5 lpw 1 pps

Period of presentation: Semester 1

Language of tuition: English

Credits: 10

Module content:

Elementary bacteriology, virology, immunology and epidemiology. Theory of the effect of antiseptic agents. Introduction to the recognition of the most important infectious diseases of domestic animals.

MVP 120 Medical nursing 120

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 2: 3 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 6

Module content:

Theoretical aspects of intensive care nursing, including fluid therapy, cardiovascular and pulmonary resuscitation, nutritional therapy, recognition and treatment of shock. Monitoring of patients.

MVP 200 Medical nursing 200

Academic organisation: Companion Animal Clinical Studies, and Production Animal Studies

Contact time: Block 3: 6 lpw Block 4: 473 clinic sessions

Period of presentation: Year

Language of tuition: English

Credits: 74

Module content:

Emergency treatment and nursing care of companion animal and production animal patients. Assisting with and performing diagnostic procedures. Lectures are offered by the departments of Companion Animal Clinical Studies and Production Animal Studies.

NAR 200 Anaesthesiology 200

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 3: 3 lpw Block 4: 80 clinic sessions

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

The physiology and signs of anaesthesia. Anaesthetics, methods and apparatus of anaesthesia. Anaesthetising and monitoring anaesthesia. Preparation and after-care. Anaesthetic emergencies.

OFM 700 Ophthalmology 700

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 30

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.

OFM 800 Ophthalmology 800

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

An advanced theoretical, practical and experiential module in ophthalmology of domestic animals (large and small animals).

OFM 890 Mini-dissertation: Ophthalmology 890

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

PAR 120 Parasitology 120

Academic organisation: Veterinary Tropical Diseases

Contact time: Block 2: 4 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 8

Module content:

Elementary helminthology, ectoparasitology and protozoology. Theoretical and practical studies on the most important parasites of domestic animals, the diseases they cause or transmit and methods to control them.

PAT 800 Pathology 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

Pathology 800 is structured to train specialist veterinary pathologists, competent in the fields of diagnostic pathology and basic Research component, and to focus mainly on diseases and conditions in sub-Saharan domestic animals and wildlife. The course content deals with general and organ pathology, diseases and conditions of the various species and completion of a mini-dissertation, publishable as a Research component article in an internationally recognised journal. Within this 3-year period, 90 weeks of consecutive practical training, as required by the South African Veterinary Council, must be undertaken.

PAT 806 Pathology: Wildlife 806

Academic organisation: Paraclinical Sciences

Contact time: 1 dpw

Period of presentation: Year

Language of tuition: English

Credits: 28

Module content:

The emphasis of the module is on practical diagnostic pathology (including forensic

pathology) and its outcomes will enable a veterinarian to investigate disease and the cause of death in wildlife. The approach will emphasise the following: after conducting a necropsy, a diagnosis is finalised by also considering the results of other diagnostic tests and ancillary data; when it is not possible to make a final diagnosis, the formulation of a list of differential diagnoses and a strategy to resolve the problem; compiling interim and final report(s) that are scientifically sound, presentable to a court of law and reflect a degree of professionalism that is commensurate with a professional person. The theoretical component includes selected information dealing with incidental findings and 'non-lesions', species-specific infectious diseases, and non-infectious diseases.

PAT 807 Necropsy technique and interpretation 807

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 28

Module content:

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

PAT 808 Ophthalmological pathology 808

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

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

PAT 871 Mechanisms of disease 871

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 20

Module content:

Mechanisms of disease (for Medicine students).

PAT 890 Mini-dissertation: Pathology 890

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 90

PFK 800 Laboratory animal science 800

Academic organisation: Paraclinical Sciences

Prerequisite: VRM 811 and a research project

Period of presentation: Year, (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 400

Module content:

An advanced module in the role of the veterinarian in laboratory animal medicine and practical aspects relating to the promotion of a productive scientific effort in the biomedical sciences.

PFK 890 Mini-dissertation: Laboratory animal science 890

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 130

PHE 601 Veterinary public health and applied epidemiology 601

Academic organisation: Paraclinical Sciences

Contact time: Block 1: 6 lpw Block 2: 5 lpw

Period of presentation: Year

Language of tuition: English

Credits: 21

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 veterinary epidemiology and the development of basic principles by way of case studies. Introduction to the social aspects of the human-animal interaction by protecting and promoting human health in communities, veterinary extension and risk communication.

PHE 650 Applied veterinary public health 650

Academic organisation: Paraclinical Sciences

Contact time: 10 ppw

Period of presentation: Year

Language of tuition: English

Credits: 18

Module content:

Practical instruction and applied consideration of the basic principles of subject areas dealt with in PHE 601.

PHP 420 Porcine health and production 420

Academic organisation: Production Animal Studies

Contact time: 2 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 5

Module content:

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

PHP 650 Applied porcine health and production 650

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 6

Module content:

Practical instruction on module matter dealt with in Porcine health and production 601.

PHP 800 Poultry health and production 800

Academic organisation: Production Animal Studies

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 418

Module content:

Advanced training in poultry health and production.

PHP 871 Poultry health and production 871

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

Advanced training in poultry health and production systems. The emphasis of the module is on practical health management and will enable poultry veterinarians to advise on the control of disease in poultry production systems. Compile interim and final reports that are scientifically sound, and reflect a degree of professionalism that is commensurate with a professional poultry veterinarian.

PLY 420 Poultry health and production 420

Academic organisation: Production Animal Studies

Contact time: 2 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 5

Module content:

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

PLY 650 Applied poultry health and production 650

Academic organisation: Production Animal Studies

Contact time: 1.7 ppw

Period of presentation: Year

Language of tuition: English

Credits: 7

Module content:

Practical instruction on module matter dealt with in Poultry health and production 601.

PVT 890 Mini-dissertation: Poultry diseases 890

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

RAV 200 Radiography 200

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 3: 3 lpw Block 4: 48 clinic sessions

Period of presentation: Year

Language of tuition: English

Credits: 12

Module content:

Generating röntgen rays and their properties. Protective measures. Manipulating exposure factors. Positioning. Purpose and maintenance of accessories. Films, contrast media, development and evaluation of the quality of röntgen photographs. Basic principles of diagnostic ultrasonography.

RUM 801 Ruminant health 801

Academic organisation: Production Animal Studies

Prerequisite: A BVSc, a four year BSc in Agriculture (Animal Science), Microbiology, Zoology or an equivalent degree

Contact time: 1 dpw 1 spw

Period of presentation: Year

Language of tuition: English

Credits: 40

Module content:

Advanced theoretical training in ruminant health with emphasis on the pathophysiology, diagnosis, treatment and control of non-infectious diseases, specifically applicable to conditions of the gastro-intestinal tract, liver, production diseases, cardiovascular system, respiratory system, nervous system, musculo-skeletal system, skin and appendages.

RUM 890 Mini-dissertation: Ruminant Health 890

Academic organisation: Production Animal Studies

Prerequisite: A BVSc, a four year BSc in Agriculture (Animal Science), Microbiology, Zoology or an equivalent degree

Contact time: 20 Contact sessions

Period of presentation: Year

Language of tuition: English

Credits: 90

Module content:

Mini-dissertation

SAC 650 Applied small animal clinical studies 650

Academic organisation: Companion Animal Clinical Studies

Contact time: 33 ppw

Period of presentation: Year

Language of tuition: English

Credits: 139

Module content:

Practical tuition under supervision in the diagnosis, treatment and control of diseases of the dog and cat. Includes tuition after-hours and over weekends, public holidays and university recesses/vacations.

SAS 400 Small animal medicine and surgery 400

Academic organisation: Companion Animal Clinical Studies

Contact time: S1: 9 lpw 8 pps; S2: 13 lpw 7 pps

Period of presentation: Year

Language of tuition: English

Credits: 50

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.

SID 815 Selected infectious diseases: Pigs 815

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 15

Module content:

A theoretical study of the epidemiology, diagnosis and control/eradication of important infectious diseases of pigs.

SSH 510 Small stock health and production 510

Academic organisation: Production Animal Studies

Contact time: 6 lpw 1ppw

Period of presentation: Semester 1

Language of tuition: English

Credits: 25

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.

SSH 601 Small stock health and production 601

Academic organisation: Production Animal Studies

Contact time: 5 lpw

Period of presentation: Year

Language of tuition: English

Credits: 19

Module content:

Theoretical training in the infectious and parasitic diseases of small stock, aspects of medical, surgical and reproductive disorders affecting small stock. Applied nutrition and flock health.

SSH 650 Applied small stock health and production 650

Academic organisation: Production Animal Studies

Contact time: 2.8 ppw

Period of presentation: Year

Language of tuition: English

Credits: 12

Module content:

Practical instruction on course matter dealt with in SSH 601.

SSH 801 Small stock health 801

Academic organisation: Production Animal Studies

Contact time: 1 dpw 1 spw

Period of presentation: Year

Language of tuition: English

Credits: 40

Module content:

The module content will be based on advanced theoretical training in small stock health with emphasis on principles of population health and production programmes, animal health economics, monitoring health and production. The module will enable students to integrate and apply knowledge so that health and production problems can be identified and solved on a flock basis and health status and production effectiveness of small stock flock can be raised from a holistic and cost effective viewpoint.

TOK 800 Toxicology 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 270

Module content:

Advanced theoretical study and specialised practical training in aspects of veterinary toxicology.

TOK 801 Veterinary toxicology: Organ/systems toxicology

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 30

Module content:

The objective of this module is to provide advanced training in veterinary toxicology, including plant poisoning syndromes, mycotoxicoses, organic and inorganic intoxications as well as zootoxicoses of veterinary importance. This will enable the candidate to develop proficiency in routine toxicological field investigations, treatment of intoxications, diagnostic procedures and to provide sound advice on preventative measures.

TOK 890 Mini-dissertation: Toxicology 890

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 90

TOX 300 Veterinary toxicology 300

Academic organisation: Paraclinical Sciences

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 14

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.

TPR 120 Theatre practice 120

Academic organisation: Companion Animal Clinical Studies

Contact time: 3 ppw Block 2: 3 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 6

Module content:

Theatre ethics. Basic principles of aseptic techniques. Types of surgical infections and their causes. Theatre management, hygiene and routine. Care of patients in the theatre. Lectures are offered by various departments.

TPR 200 Theatre practice 200

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 3: 3 lpw Block 4: 50 clinic sessions

Period of presentation: Year

Language of tuition: English

Credits: 12

Module content:

Principles of sterilisation and disinfection. Surgical instruments, equipment, accessories and its maintenance and care. Suture materials and suturing. Professional responsibility.

VCA 200 Veterinary comparative anatomy 200

Academic organisation: Anatomy and Physiology

Contact time: Semester 1: 9 lpw Semester 2: 11 lpw

Period of presentation: Year

Language of tuition: English

Credits: 38

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.

VCP 600 Veterinary core practice 600

Academic organisation: Production Animal Studies

Prerequisite/s: All modules up to and including the 9th semester of the BVSc curriculum

Period of presentation: 72 weeks during the 10th, 11th and 12th semesters of the BVSc programme

Language of tuition: English

Credits: 160

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.

VEM 210 Veterinary microbiology 210

Academic organisation: Veterinary Tropical Diseases

Contact time: 3 lpw

Period of presentation: Quarter 1

Language of tuition: English

Credits: 5

Module content:

General introduction to microbiology, bacteriology and mycoplasmaology, 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, sterilisation and disinfection.

VEP 600 Veterinary elective practice 600

Academic organisation: Companion Animal Clinical Studies

Period of presentation: The module will be presented over a period of 72 weeks during the 10th, 11th and 12th semesters of the BVSc course

Language of tuition: English

Credits: 120

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.

VET 110 Veterinary ethology 110

Academic organisation: Companion Animal Clinical Studies

Contact time: 3 ppw Block 1: 8 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 16

Module content:

Introduction to veterinary ethology. Applied ethology of companion animals (dogs, cats, horses) and applied production animal ethology (cattle, sheep, pigs), including livestock, breeds, behaviour, breeding, feeding and care of each species. Lectures are offered by the departments of Companion Animal Clinical Studies and Production Animal Studies.

VET 200 Veterinary ethology and genetics 200

Academic organisation: Production Animal Studies

Contact time: 3 lpw 4 ppw

Period of presentation: Year

Language of tuition: English

Credits: 23

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, key aspects of nutrition in companion animals, animal welfare and animal welfare legislation.

VET 890 Mini-dissertation: Veterinary ethology 890

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

VIM 220 Veterinary immunology 220

Academic organisation: Veterinary Tropical Diseases

Contact time: 3 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 5

Module content:

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

VIP 300 Veterinary infectious diseases 300

Academic organisation: Veterinary Tropical Diseases

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 14

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 socioeconomic importance of infectious diseases of animals with special reference to transboundary spread.

VIP 800 Veterinary industrial pharmacology 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 50

Module content:

Veterinary pharmaceutical discovery and development. Non-clinical safety and preclinical toxicology. Clinical safety and efficacy evaluation. Good laboratory and clinical practices.

Drug statutory and application requirement. Drug application submission. Regulatory procedures, evaluation and veterinary drug control. Drug residue risk assessment. Product planning, production management and quality assurance. Drug marketing, pricing and promotion. Technical services, training, extension, product support and complaint investigation.

VIP 890 Minidissertation: Veterinary industrial pharmacology 890

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 100

VKH 800 Pig herd health 800

Academic organisation: Production Animal Studies

Contact time: 12 Seminars per year plus 90 weeks of experiential training under supervision

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 423

Module content:

Specialised training based on farm visits, discussions, seminars and case studies. Integration and application of knowledge so that health and production problems can be identified and solved on a herd basis, and health status and production effectiveness of pig herds can be raised within a wide spectrum of pig-farming systems.

VKH 890 Mini-dissertation: Pig herd health 890

Academic organisation: Production AnimMal Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

VOH 510 One Health 510

Academic organisation: Veterinary Tropical Diseases

Contact time: 2 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 7

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.

VPH 200 Veterinary physiology and histology 200

Academic organisation: Anatomy and Physiology

Contact time: Semester 1: 8 lpw Semester 2: 9 lpw

Period of presentation: Year

Language of tuition: English

Credits: 33

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 thermo-regulation.

VPH 300 General veterinary pharmacology 300

Academic organisation: Paraclinical Sciences

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 14

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 utilised in general veterinary practice with emphasis on their pharmacological effects, general indication, safety and side effects.

VPH 510-Veterinary Public Health 510

Academic organisation: Paraclinical Sciences

Contact time: S1: 6 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 14

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.

VPH 881 Veterinary public health: Meat hygiene 881

Academic organisation: Paraclinical Sciences

Contact time: 10 ppw

Period of presentation: Year

Language of tuition: English

Credits: 40

Module content:

A coherent and critical understanding and application of the theory and research methodologies and techniques relevant to all aspects of red meat hygiene relating to prevention and control of zoonoses and other diseases transmitted by meat, welfare of livestock, pre-harvesting, harvesting and post-harvesting aspects of red meat production, practical application of HACCP relating to the specific activities, prevention and control of chemical residues in meat, including veterinary drug residues and appropriate national and international legislation. An understanding of how these relate to applied research relevant to industry or public health (including the ability to select and apply research methods effectively). Ability must be shown to rigorously critique and evaluate current research and participate in scholarly debates in this area of specialisation. Ability must be demonstrated to relate theory to practice and vice versa and to think epistemologically.

VPH 882 Veterinary public health: Poultry food hygiene 882

Academic organisation: Paraclinical Sciences

Contact time: 10 ppw

Period of presentation: Year

Language of tuition: English

Credits: 40

Module content:

A coherent and critical understanding and application of the theory and research methodologies and techniques relevant to all aspects of poultry hygiene relating to prevention and control of zoonoses and other diseases transmitted by meat, eggs or other poultry products, welfare of poultry, pre-harvesting, harvesting and post-harvesting aspects of poultry meat or egg production, practical application of HACCP relating to the specific activities, prevention and control of chemical residues, including veterinary drug residues and appropriate national and international legislation. An understanding of how these relate to applied research relevant to industry or public health (including the ability to select and apply research methods effectively). Ability must be shown to rigorously critique and evaluate current research and participate in scholarly debates in this area of specialisation. Ability must be demonstrated to relate theory to practice and vice versa and to think epistemologically.

VPH 883 Veterinary public health: Veterinary milk hygiene 883

Academic organisation: Paraclinical Sciences

Contact time: 10 ppw

Period of presentation: Year

Language of tuition: English

Credits: 40

Module content:

A coherent and critical understanding and application of the theory and research methodologies and techniques relevant to all aspects of milk hygiene relating to prevention and control of zoonoses and other diseases transmitted by milk, or other dairy products, welfare of livestock, pre-harvesting, harvesting and post-harvesting aspects of milk or dairy products, practical application of HACCP relating to the specific activities, prevention and control of chemical residues, including veterinary drug residues and appropriate national and international legislation. An understanding of how these relate to applied research relevant to industry or public health (including the ability to select and apply research methods effectively). Ability must be shown to rigorously critique and evaluate current research and participate in scholarly debates in this area of specialisation. Ability must be demonstrated to relate theory to practice and vice versa and to think epistemologically.

VPH 884 Veterinary public health: Environmental health and biosecurity 884

Academic organisation: Paraclinical Sciences

Contact time: 10 ppw

Period of presentation: Year

Language of tuition: English

Credits: 40

Module content:

A coherent and critical understanding and application of the theory and research methodologies and techniques relevant to control of zoonoses of environmental origin, biosecurity relating to food of animal origin and management of disasters and emergencies involving animals and animal products, safe collection and disposal of animal carcasses, condemned meat or other animal products and animal wastes. The prevention, control and impact assessment of pollution by livestock production or industries, population control of animals in rural and urban environments to prevent zoonoses, occupational health of veterinary staff, management of the veterinary public health aspects of disasters and emergencies, evaluation of human-animal interactions and their impact on human health including animal facilitated therapy. An understanding of appropriate national and international legislation and how these relate to industry or public health (including ability to select and apply research methods effectively). Ability must be shown to rigorously critique and evaluate current research and participate in

scholarly debates in this area of specialisation. Ability must be demonstrated to relate theory to practice and vice versa and to think epistemologically.

VPH 890 Mini-dissertation: Veterinary Public Health

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 80

Module content:

Mini-dissertation

VPL 120 Veterinary professional life 120

Academic organisation: Veterinary Tropical Diseases

Contact time: 2 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 3

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 120 module specifically aims to expose students to the diversity of opportunities and career paths in the veterinary profession.

VPL 200 Veterinary professional life 200

Academic organisation: Veterinary Tropical Diseases

Contact time: 2 lpw

Period of presentation: Year

Language of tuition: English

Credits: 7

Module content:

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

VPL 300 Veterinary professional life 300

Academic organisation: Veterinary Tropical Diseases

Contact time: 1 dpw 2 lpw

Period of presentation: Year

Language of tuition: English

Credits: 10

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.

VPL 400 Veterinary professional life 400

Academic organisation: Veterinary Tropical Diseases

Contact time: 2 lpw

Period of presentation: Year

Language of tuition: English

Credits: 11

Module content:

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

VPL 510 Veterinary business management 510

Academic organisation: Veterinary Tropical Diseases

Contact time: 3 ppw

Period of presentation: Semester 1

Language of tuition: English

Credits: 10

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.

VRM 811 Research methodology 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1 and Semester 2

Language of tuition: English

Credits: 20

Module content:

A web-based introductory module in research methodology that includes planning and undertaking a research project or clinical trial, collecting and analysing data, scientific writing, and preparation and presenting of a research protocol.

VRP 400 Veterinary reproduction 400

Academic organisation: Production Animal Studies

Contact time: 4 lpw 20 ppy

Period of presentation: Year

Language of tuition: English

Credits: 17

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.

VTP 300 Veterinary parasitology 300

Academic organisation: Veterinary Tropical Diseases

Contact time: 5 lpw

Period of presentation: Year

Language of tuition: English

Credits: 22

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.

VTS 890 Mini-dissertation 890

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Year

Language of tuition: English

Credits: 100

VVD 800 Veterinary public health 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 300

Module content:

Specialised integration and application of knowledge within a single specific activity (core module) in Veterinary public health, including an approved research project.

VVD 895 Mini-dissertation: Veterinary public health 895

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 100

VWE 801 Dissertation: Veterinary tropical diseases 801

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Year

Language of tuition: English

Credits: 240

VWE 802 Dissertation: Anatomy and physiology 802

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 240

VWE 803 Dissertation: Companion animal clinical studies 803

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 240

VWE 804 Dissertation: Paraclinical sciences 804

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 240

VWE 805 Dissertation: Production animal studies 805

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 240

VWE 901 Thesis: Veterinary tropical diseases 901

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Year

Language of tuition: English

Credits: 360

VWE 902 Thesis: Anatomy and physiology 902

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 360

VWE 903 Thesis: Companion animal clinical sciences 903

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 360

VWE 904 Thesis: Paraclinical sciences 904

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 360

VWE 905 Thesis: Production animal studies 905

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 360

WLS 800 Veterinary wildlife studies 800

Academic organisation: Production Animal Studies

Contact time: 1 dpw 1 spw 5 ppw

Period of presentation: Year (the contact sessions with the associated preparation may be spread over two to three calendar years)

Language of tuition: English

Credits: 420

Module content:

Broad-based, in-depth theoretical and practical training with emphasis on the skills required to capture, transport and manage free-ranging and captive animals with due consideration of conservation ecology, the interaction of wildlife and domestic animals and the control of diseases of wildlife.

WSK 890 Mini-dissertation: Wildlife diseases 890

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 90

Alphabetical list of modules presented by other faculties
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Faculty of Humanities

LST 110 Language and study skills 110**Academic organisation:** Unit for Academic Literacy**Contact time:** 2 lpw**Period of presentation:** Semester 1**Language of tuition:** English**Credits:** 6**Module content:**

The module aims to equip students with the ability to cope with the reading and writing demands of mainstream modules. LST 110 comprises two components: A flexible learning component that requires individual engagement with the online computer program, MyFoundationsLab; and a formal taught component utilising the scheduled contact periods.

MTL 180 Medical terminology 180**Academic organisation:** Ancient Languages and Cultures**Contact time:** 2 lpw**Period of presentation:** Semester 1 and Semester 2**Language of tuition:** Both Afr and Eng**Credits:** 12**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.

Faculty of Natural and Agricultural Sciences

CMY 117 General chemistry 117**Academic organisation:** Chemistry**Prerequisite:** Refer to Regulation 1.2: A candidate must have obtained at least 50% for Mathematics and Physical Science in the Grade 12 examination**Contact time:** 1 ppw 4 lpw**Period of presentation:** Semester 1**Language of tuition:** Both Afr and Eng**Credits:** 16**Module content:**

Theory: General introduction to inorganic and analytical chemistry. Nomenclature of inorganic ions and compounds, stoichiometric calculations concerning chemical reactions, redox reactions, solubilities, atomic structure, periodicity. Inorganic and physical chemistry. Molecular structure and chemical bonding using the VSEPR models. Chemical equilibrium, acids and bases, buffers, precipitation.

CMY 127 General chemistry 127**Academic organisation:** Chemistry**Prerequisite:** Natural and Agricultural Sciences students: CMY 117 GS or CMY 154 GS
Health Sciences students: none**Contact time:** 1 ppw 4 lpw

Period of presentation: Semester 2

Language of tuition: Both Afr and Eng

Credits: 16

Module content:

Theory: General physical-analytical chemistry: Physical behaviour of gases, liquids and solids, intermolecular forces, solutions. Principles of reactivity: energy and chemical reactions, entropy and free energy, electrochemistry. Organic chemistry: Structure (bonding), nomenclature, isomerism, introductory stereochemistry, introduction to chemical reactions and chemical properties of organic compounds and biological compounds, ie carbohydrates, lipids and aminoacids. Practical: Molecular structure (model building), synthesis and properties of simple organic compounds.

GTS 161 Introductory genetics 161

Academic organisation: Genetics

Prerequisite: MLB 111 GS

Contact time: 2 lpw fortnightly practicals

Period of presentation: Semester 2

Language of tuition: Both Afr and Eng

Credits: 8

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.

MFK 800 Medical physics 800

Academic organisation: Physics

Contact time: 2 lpw

Period of presentation: Year

Language of tuition: English

Credits: 36

MLB 111 Molecular and cell biology 111

Academic organisation: Genetics

Prerequisite: Refer to Regulation 1.2(c): A candidate who has passed Mathematics with at least 50% in the Grade 12 examination

Contact time: 1 ppw 4 lpw

Period of presentation: Semester 1

Language of tuition: Both Afr and Eng

Credits: 16

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.

PHY 131 Physics for Biology students 131

Academic organisation: Physics

Prerequisite: Refer to Regulation 1.2: A candidate must have obtained at least 50% for Mathematics Grade 12 examination

Contact time: 1 dpw 1 ppw 4 lpw

Period of presentation: Semester 1

Language of tuition: Both Afr and Eng

Credits: 16

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.

VKU 120 Animal science 120

Academic organisation: Animal and Wildlife Sciences

Contact time: 0.5ppw 2 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 8

Module content:

Origin and domestication of farm and companion animals. The ecological environment in which animal production and development is practised. Livestock species, breeds and breed characterisation and genetic variation. Terminology. Practical work includes identification and classification of different breeds of livestock.

VKU 122 Animal nutrition 122

Academic organisation: Animal and Wildlife Sciences

Contact time: 2 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 6

Module content:

The chemical composition of fodder. Digestive processes and the digestibility of fodder. The nutrition and nutritional requirements of farm stock. Basic composition of rations. Intensive and extensive feeding.

VKU 210 Animal science 210

Academic organisation: Animal and Wildlife Sciences

Prerequisite: VKU 120 GS or TDH

Contact time: 1 ppw 2 lpw

Period of presentation: Quarter 1

Language of tuition: English

Credits: 8

Module content:

Basic principles of nutrition, physiology, breeding and production. Applied principles of livestock production, production management and systems (large livestock, small stock, pigs and poultry). Organisation of the livestock industry and relevant legislation. Animal handling. Practical work includes the general care and handling of farm stock.

VKU 220 Animal science 220

Academic organisation: Animal and Wildlife Sciences

Prerequisite: VKU 210 GS or TDH

Contact time: 1 ppw 2 lpw

Period of presentation: Quarter 2

Language of tuition: English

Credits: 12

Module content:

Livestock ecology, interaction between genotype and environment. Production regions and systems. Animal ecological factors that influence regional classification. Animal ecological factors to be considered in production factors, planning and management of different livestock production systems. Conservation farming and adapted farming and management systems; environmental conservation. Practical work will consist of compulsory farm practical during vacation after the 1st year and or during the 2nd year of study.

WDE 253 Basic principles of pasture science 253

Academic organisation: Plant Production and Soil Science

Contact time: 4 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 18

Module content:

The influence of biotic and abiotic factors on the productivity of different strata and components of natural and planted pastures. This will enable the student to understand the management, production, appropriate and optimal utilisation as well as the conservation of these pastures. These principles can be used to ensure sustainable animal production and health.

WTW 134 Mathematics 134

Academic organisation: Mathematics and Applied Mathematics

Prerequisite: A candidate must have passed Mathematics with at least 50% in the Grade 12 examination

Contact time: 1 tpw 4 lpw

Period of presentation: Semester 1 or Semester 2

Language of tuition: Both Afr and Eng

Credits: 16

Module content:

*Students will not be credited for more than one of the following modules for their degree: WTW 134, WTW 114, WTW 158. WTW 134 does not lead to admission to Mathematics at 200 level and is intended for students who require Mathematics at 100 level only. WTW 134 can also be taken in the second semester.

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.

Faculty of Economic and Management Sciences

BME 120 Biometry 120

Academic organisation: Statistics

Prerequisite: At least 4 (50-59%) in Mathematics in the Grade 12 examination, or at least 50% in both Statistics 113, 123

Contact time: 1 ppw 4 lpw

Period of presentation: Semester 2

Language of tuition: Both Afr and Eng

Credits: 16

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.

Faculty of Health Sciences

CDS 872 Economic evaluation of disease control intervention 872

Academic organisation: School of Health System and Public Health

Contact time: 40 dpw

Period of presentation: Year

Language of tuition: English

Credits: 10

EHM 870 Basis in environmental health 870

Academic organisation: School of Health System and Public Health

Contact time: 1 dpw 1 lpw 1 opw 1 ppw 1 spw

Period of presentation: Year

Language of tuition: English

Credits: 5

EHM 871 Health risk assessment 871

Academic organisation: School of Health System and Public Health

Prerequisite: EOH 871

Period of presentation: Year

Language of tuition: English

Credits: 10

HCS 870 Project management in health 870

Academic organisation: School of Health System and Public Health

Prerequisite: HME 870

Contact time: 1 dpw 1 lpw 1 opw 1 ppw 1 spw

Period of presentation: Year

Language of tuition: English

Credits: 10

HIN 870 Introduction to health informatics 870

Academic organisation: School of Health System and Public Health

Period of presentation: Year

Language of tuition: English

Credits: 10

HME 873 Monitoring and evaluation 873

Academic organisation: School of Health System and Public Health

Contact time: 1 ppw 2 lpw

Period of presentation: Year

Language of tuition: English

Credits: 15

QHR 870 Qualitative research methods 870

Academic organisation: School of Health System and Public Health

Period of presentation: Year

Language of tuition: English

Credits: 10

SCC 871 Communication in health 871

Academic organisation: School of Health System and Public Health

Contact time: 1 ppw 16 lpw

Period of presentation: Year

Language of tuition: English

Credits: 10

Faculty of Engineering, Built Environment and Information Technology

AIM 101 Academic information management 101

Academic organisation: School of Information Technology

Contact time: 2 lpw

Period of presentation: Semester 1 or Semester 2

Language of tuition: Both Afr and Eng

Credits: 6

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.