

**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 2010**

DEAN

Prof. G.E. Swan, BVSc(Hons) MMedVet(Pharm et Tox)(Pretoria) PhD(Potchefstroom)

DEPUTY DEAN

Prof. H.M. Terblanche, BVSc MMedVet(Phys)(Pretoria)

Office of the Deputy Dean

Stadler, P., BVSc(Hons) MMedVet(Med) MBA(Pretoria) Professor

DIRECTOR OF CLINICAL SERVICES

Annandale, C.H., BVSc MMedVet(Gyn)(Pretoria)

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)

Soley, J.T., BA(Hons)(Unisa) MSc(Witwatersrand) PhD(Pretoria) Professor

Brand, T.S., BSc Agric (Stellenbosch), PhD Agric(Stellenbosch) Extraordinary Professor

Madekurozwa, M.N., BVSc(Zimbabwe) PhD(Glasgow) Professor

Meintjies, 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

Van Staden, S.L., BVSc(Hons) MMedVet(Rad)(Pretoria) Dip ECVDI ... Senior Lecturer

Hornsveld, M., BVSc PhD(Pretoria) Senior Lecturer

Crole, M.R., BVSc(Hons) MSc(Vet Science)(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(Cantab) Professor (Head)

DSAM (RCVS-London) CertEntrepStud(Cantab); DipECVIM-CA

Kirberger, R.M., BVSc MMedVet(Rad) DTO(Pretoria) DipECVDI Professor

Carstens, A., BVSc MMedVet(Chir) MMedVet(Diaglm) Associate Professor
DTO(Pretoria) MS(TexasA&M) DipECVDI

Coetzee, G.L., BVSc(Hons) MMedVet(Chir)(Pretoria) Associate Professor

Dvir, E., DVM(Jerusalem) BVSc(Hons) MMedVet(Med)(Pretoria) Associate Professor
DipECVIM-CA

Goddard, A., BVSc(Hons) MMedVet(ClinLabDiag)(Pretoria) Associate Professor

Leisewitz, A.L., BVSc(Hons) MMedVet(Med)(Pretoria) Associate Professor
PhD(Open,UK) DipECVIM-CA

Rubio Martinez, L. M. R., DVM (Madrid) Cert.Pedag(Madrid) Associate Professor
DVSc(Guelph) PhD(Madrid) DipACVS(Large Animal)

Saulez, M.N., BVSc(Pretoria) MS(Oregon State University) Associate Professor
PhD(Pretoria) Dip ACVIM(LA-IM)

Stegmann, G.F., BVSc(Hons) MMedVet(Anaes) Associate Professor
DTO(Pretoria) DipECVA

Bester, L., BVSc MMedVET(Anaesth)(Pretoria) Senior Lecturer

Dzikiti, T.B., BVSc(Zimbabwe) MSc(Vet Anaes)(Utrecht) Senior Lecturer

Goodhead, A.D., BSc (Pietermaritzburg) BVSc Senior Lecturer
MMedVet(Ophth)(Pretoria)

Marais, H.J., BVSc(Hons) MSc(Vet Science)(Pretoria) Senior Lecturer

Millward, I.L., BVSc(Massey NZ) Cert.SAS(RCVS) MMedVet(Chir)(Pretoria)	Senior Lecturer
Page, P.C., MMedVet(Equine Medicine)(Pretoria)	Senior Lecturer
Rioja Garcia, E.R., DVM(Madrid) Cert.Pedag(Madrid) DVSc(Guelph) .. PhD(Madrid) DipACVA	Senior Lecturer
Sanz, M.G., BVSc(Arg) MS(Washington State) DACVIM(LA-IM).....	Senior Lecturer
Scheepers, E., BSc(Hons) BVSc(Hons) MSc(Vet Science)(Pretoria) ...	Senior Lecturer
Stander, N., BVSc(Hons) MMedVet(Diagnostic Imaging)(Pretoria)	Senior Lecturer
Steenkamp, G., BSc BVSc MSc(Zoology) (Pretoria)	Senior Lecturer
Van Schoor, M., BVSc(Hons) MMedVet(Med)(Pretoria)	Senior Lecturer
Venter, I.J., BVSc MMedVet(Ophth)(Pretoria)	Senior Lecturer
Christie, J. C., BVSc(Hons) (Pretoria)	Lecturer
Hartman, M.J., BVSc(Hons)(Pretoria)	Lecturer
Kitshoff, A.M., BVSc(Hons)(Pretoria)	Lecturer
Lindsay, N., BSc BVSc(Pretoria).....	Lecturer
McClure, V., BVSc BVSc(Hons)(Pretoria)	Lecturer
Mosathupa, J.G., BTEch(Diagn Rad)(Technikon Witwatersrand) HED(Unisa) PDMB(KwaZulu-Natal)	Lecturer
Mukorera, V., BVSc(Zim)	Lecturer
Rees, P., BVSc(Hons)(Pretoria) MMedVet(Med)(Pretoria)	Lecturer
Sonntag, Q., BVSc(Hons)(Pretoria) PGCHE(Pretoria)	Lecturer
Van Vollenhoven, E., BVSc(Pret) LLB(Pretoria).....	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)..... DSc(Plant Biochemistry)(Potchefstroom)	Professor
Kriek, N.P.J., BVSc MMedVet(Path)(Pretoria)	Professor
McCrimble, C.M.E., BVSc(Hons) PhD(Pretoria)	Professor
Prozesky, L., BVSc MMedVet(Path) PhD(Pretoria)	Professor
Guillette, L.J., BS(New Mexico) MA PhD(Colorado)	Extraordinary Professor
Kellerman, F., BSc (Agric)(Natal) BVSc(Pretoria)..... DVSc(Honoris Causa)	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) Dip ACVP	Associate Professor
Williams, M.C., BVSc MMedVet(Path)(Pretoria)	Associate Professor
Clift, S.J., BVSc MSc(Vet Science)(Pretoria).....	Senior Lecturer
Myburgh, J.G., Dip Pasture Management BVSc(Hons)(Pretoria) MMedVet(Med)(Medunsa)	Senior Lecturer
Williams, J.H., BVSc(Pretoria).....	Senior Lecturer
Odendaal, L., BVSc(Pretoria).....	Lecturer
Qekwana D.N., BVSc(Pretoria).....	Lecturer
Steyl, J.C.A., BVSc(Pretoria).....	Lecturer
Venter, L.J., BVSc(Hons)(Pretoria)	Lecturer
Joubert, K.E., BVSc(Hons) MMedVet(Anaes)(Pretoria).....	Extraordinary Lecturer
McGaw, L.J.,BSc BSc(Hons) PhD(KwaZulu-Natal)	Extraordinary Lecturer
Naicker, D., BSc(Biol Sc) BSc(Hons) MSc PhD(KwaZulu-Natal)	Extraordinary Lecturer
Neser, J.A., BVSc MMedVet(Path)(Pretoria)	Extraordinary Lecturer
Raath, J.P., BVSc(Pretoria)	Extraordinary Lecturer
Oberholster, P.J., BSc BA MEM MSc(UOFS) PhD(Pretoria)	Extraordinary Lecturer

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	
Lourens, D.C., BVSc MMedVet(Med)(Pretoria)	Professor
Nöthling, J.O., BVSc MMedVet(Gyn) MBA(Pretoria) PhD(Utrecht)	Professor
Rautenbach, G.H., BVSc(Hons) MMedVet(Med)(Pretoria)	Professor
Bertschinger, H.J., BVSc(Pretoria) Dr MedVet(Zürich)	Professor Emeritus
Diplomate European College of Animal Reproduction	
Gummow, B., BVSc(Hons) MMedVet(Pharm)(Pretoria) PhD(Utrecht) ..	Extraordinary Professor
Skinner, J.D., BSc(Agric)(Natal) MSc(Agric)(Pretoria) PhD(Cantab)	Extraordinary Professor
CIBiol FIBiol FZS FRS(SA) Sci Nat	
Bath, G.F., BVSc(Pretoria)	Associate Professor
Petty, K.P., BSc(Hons)(Witwatersrand) BVSc(Pretoria).....	Associate Professor
Schulman, M.L., BVSc MMedVet(Gyn)(Pretoria)	Associate Professor
Shakespeare, A.S., BSc(Eng)(Natal) BVSc(Hons)	Associate Professor
MMedVet(Med)(Pretoria)	
Thompson, P.N., BVSc MMedVet(Med)(Pretoria) PhD(Utrecht)	Professor
Botha, A.E., Dip Cur Anim THED(Pretoria) MSc(Pretoria)	Senior Lecturer
Carrington, C.A.P., BVSc(Pretoria) BComm(Unisa)	Senior Lecturer
MMedVet(Med)(Bov)(Pretoria)	
Harmse, J.G., BVSc(Pretoria)	Senior Lecturer
Petzer, I.M., BVSc MSc(Vet Science)(Pretoria)	Senior Lecturer
Smith, P.W., BVSc(Pretoria)	Senior Lecturer
Spencer, B.T., BVSc(Pretoria) BComm(Unisa)	Senior Lecturer
MMedVet(Suill)(Pretoria)	
Anandale, A., VetMed(Germany) DipACT	Lecturer
Blignaut, D.J.C., BVSc(Pretoria)	Lecturer
Holm, D.E., BVSc MSc(Vet Science)(Pretoria).....	Lecturer
Hughes, S.B., BVSc(Pretoria) DipACT	Lecturer
Leask, R., BSc (Agric)(Natal Pietermaritzburg) BVSc(Pretoria)	Lecturer
Steckler, D., VetMed(Zürich) DipACT	Lecturer
Van Schalkwyk, O.L., BVSc(Pretoria), MSc(Pretoria)	Lecturer
Buss, P.E., BVSc MMedVet(Pharm)(Pretoria)	Extraordinary Lecturer
De Vos, V., BVSc BSc(Hons)(Pretoria)	Extraordinary Lecturer
Gerber, D., Dr MedVet(Zürich) DipACT DipECAR	Extraordinary Lecturer
MMedVet(Gyn)(Pretoria)	
Mitchell, G., BSc(Wits) BVSc(Pretoria) PhD(Wits) DVSc(Pretoria)	Extraordinary Lecturer
Schultheiss, W.A., BVSc MMedVet(Gyn)(Pretoria).....	Extraordinary Lecturer
Stout, T.A.E., MA VetMB PhD MRCVS Dip ECAR KNMvD	Extraordinary Lecturer
Terblanche, S.J., BVsc MMedVet(Gyn)(Pret) Dipt DTE Pret)	Extraordinary Lecturer

Department of Veterinary Tropical Diseases

Coetzer, J.A.W., BVSc(Hons) MMedVet(Path)(Pretoria)	Professor (Head)
Penzhorn, B.L., BVSc BSc(Hons)(Pretoria) MAgric(Texas A&M)	Professor
DSc(Wildlife Management)(Pretoria)	
Van Vuuren, M., BVSc MMedVet(Micro)(Pretoria).....	Professor
Michel, A.L., BVSc(Munich) DVM(Munich) PhD(Utrecht)	Associate Professor
Venter, E.H., BSc(Hons)(Free State) MSc(Free State) PhD(Pretoria) ..	Associate Professor
Allsopp, B.A., BSc(Hons) PhD(London)	Extraordinary Professor
Godfroid, J., DVM(Liège) MSc(Brussels) PhD(Namur)	Extraordinary Professor

Horak, I.G., BVSc DVSc(Pretoria) PhD(Natal).....	Extraordinary Professor
Jongejan, F., BSc(Biol)(Amsterdam) MSc(Med Biol).....	Extraordinary Professor
PhD(Vet Micro)(Utrecht)	
Latif, A.A.I., BVSc MVSc PhD(Khartoum).....	Extraordinary Professor
MacLachlan, N. J., BVSc(Massey University, New Zealand).....	Extraordinary Professor
MS(Missouri), PhD(California), Dip ACVP	
Majiwa, P.A.O., BS(Jarvis) MS(Dallas, Texas) PhD(Brussels)	Extraordinary Professor
Marcotty, T., DVM PhD(Liège)	Extraordinary Professor
Musoke, A.J., BVSc(Nairobi) MSc PhD(Michigan State)	Extraordinary Professor
Penrith, M-L., BSc(Hons)(Zool) PhD(Cape Town)	Extraordinary Professor
BVSc(Hons) DSc(Pretoria)	
Perry, B., OBE BVM&S DTVM DVM&S(Edinburgh) FRCVS	Extraordinary Professor
Rutten, V.P.M.G., BSc MSc(MedBio/Hons) PhD(Immunol)(Utrecht).....	Extraordinary Professor
Vosloo, W., BSc(Hons) MSc(Micro)(Pretoria) PhD(Cape Town).....	Extraordinary Professor
Crafford, J.E., BVSc MSc(Vet Science)(Pretoria)	Senior Lecturer
Knobel, D.L. BVSc MSc(Pretoria) PhD(Edinburgh)	Senior Lecturer
Matjila, P.T., BSc(Medunsa) MSc(Vet Science)(Pretoria).....	Senior Lecturer
PhD(Pretoria)	
Oosthuizen, M.C., BSc(Agric) BSc(Agric)(Hons) MSc PhD(Pretoria)....	Senior Lecturer
Quan, M., BVSc MSc(Pretoria) PhD(Edinburgh)	Senior Lecturer
Schwan, E.V., DVM(Hannover) MVSc(Appl Parasitology)(Liverpool) ...	Senior Lecturer
Dr med.vet(Hannover) PhD(Pretoria)	
Stoltz, W.H., BVSc(Pretoria).....	Senior Lecturer
Van Heerden, H., BSc(Biol) BSc(Hons) MSc(Free State).....	Senior Lecturer
PhD(Pretoria)	
Jenkins, A.O., DVM(Ibadan), MSc(Vet Science)(Pretoria)	Lecturer
Morar, D., BSc(Hons)(Microbiology) MSc(Vet Science) PhD(Pretoria) .	Lecturer
Collins, N.E., BSc(Hons) PhD(Witwatersrand)	Extraordinary Lecturer
Fehrsen, J., BSc(Hons)(Cape Town) MSc(Witwatersrand).....	Extraordinary Lecturer
PhD(Rhodes)	
Heath, J.A., MSc(Agric) PhD(Pretoria)	Extraordinary Lecturer
Koekemoer, J.J.O., MSc PhD(Potchefstroom)	Extraordinary Lecturer
Mans, B.J., BSc(Hons) MSc PhD(Pretoria)	Extraordinary Lecturer
Maree, F.F., BMedSci BSc(Hons) PhD(Pretoria).....	Extraordinary Lecturer
Sabeta, C., BSc(Hons)(UZ, Harare) 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
Wallace, D.B., BSc(Hons) MSc(Cape Town) PhD(Pretoria)	Extraordinary Lecturer
Sibeko, K., BSc(Hons) MSc(Biotech)(Limpopo) PhD(Pretoria)	Research Officer
Van Rooyen J., BSc(Agric)Animal.Sci(Pretoria), BSc(Hons)Wildlife	Research Officer
Management(Pretoria), MSc(Agric)Animal.Sci(Pretoria)	

Equine Research Centre

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

Centre for Veterinary Wildlife Studies

Alexander Forbes Chair for Wildlife

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

The rules for degrees and diplomas here published are subject to change and may be amended prior to the commencement of the academic year in 2011.

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 30 June. Information on application for postgraduate programmes: consult the relevant head of department.

BVSc degree programme

The BVSc degree programme has been reviewed with the aim of developing a new core-selective single degree structure. The first year of study of this new 6-year programme commences in 2011. Intake into the BSc (Veterinary Biology) programme was terminated in 2010. Students who were selected and enrolled for BSc (Veterinary Biology) III in 2011 will be required to complete the third year at the Onderstepoort Campus. Successful candidates will then be allowed to enter and complete the current four-year BVSc degree programme at the Onderstepoort Campus. This programme will be phased out over time.

Students who were not selected for admission to the BSc (Veterinary Biology) third year, will have to select an alternative BSc degree programme in the Faculty of Natural and Agricultural Sciences.

DCH(Vet) and DHA(Vet)

The DCH(Vet) programme will be offered in 2011. The DHA(Vet) programme will not be offered in 2011.

University Diploma in Veterinary Nursing

Only a limited number of students will be admitted [consult V.10 (a)(i), (ii), (iii) and (iv)]. The programme is currently under review.

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 of their faculty before the end of the first semester.

Language of instruction

In conducting its business, the University uses two official languages, namely Afrikaans and English. However, since 1997, English is the only medium of instruction in the Faculty of Veterinary Science, although undergraduate students may answer tests and examinations in Afrikaans. A proficiency test in English may be required as part of the selection procedure.

In respect of administrative and other services, a student has the right to choose whether the University should communicate with him or her in Afrikaans or English.

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 third year of the BSc (Veterinary Biology) degree programme, BVSc degree programme or DipVetNurs diploma programme. Details concerning accommodation fees are available on request.

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.

Academic Orientation Programme

This programme is presented annually for all new diploma and third-year BSc (Veterinary Biology) students. Attendance is compulsory. Parents of diploma students, may attend the first day of the programme, details of which are obtainable from:

The Head: Student Administration, Faculty of Veterinary Science, University of Pretoria, Private Bag X04, 0110, Onderstepoort.

Leadership and Management Awareness Programme

The programme is presented annually for all new diploma and BVSc II students. It takes place before lectures start and forms part of the orientation programme for diploma students. Attendance is compulsory.

Hospital Orientation Programme

The programme is presented annually for all BVSc III students. It takes place during the week before the clinic rotation programme starts in September.

Attendance is compulsory.

Prescribed books

Students are requested not to purchase any books or instruments before they start with the programme. Specific requirements are stated 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 presentation 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 presentation 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.

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.

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

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

1. Admission to undergraduate studies

1.1 General

1.1.1 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.

1.1.2 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.

1.1.3 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 provide proof of academic literacy. This can be achieved through successful completion of prescribed tests and/or successful completion of prescribed modules.

4. Computer and information literacy

It is expected of all new undergraduate students to provide proof of computer literacy. This can be achieved through successful completion of prescribed tests and/or successful completion of prescribed modules in computer and information literacy.

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. Examination and 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 Semester Assessments and Examinations in the Faculty of Veterinary Science* as well as individual study guides.

7.1 Subminima in examinations

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

7.2 Examinations (Reg G.12)

The examinations for modules offered in the first semester, take place in May/June,

while all other examinations (for second-semester modules and year modules) take place from August to November.

7.3 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 Semester Assessments and Examinations in the Faculty of Veterinary Science*.

7.4 Re-marking of examination papers (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 in August to November and within 3 working days in January.** The examiner will be appointed by the head of the department concerned. Re-evaluation of oral examinations is not allowed.

7.5 Supplementary examinations (Reg G. 12.4)

Supplementary examinations in first-semester modules take place as provided for in Reg V.1(d)(1)(ii)(bb), and V.10(i)(i)(bb), while those for year modules take place before the beginning of the first semester of the following year, or otherwise as stipulated in the study guide for that module.

7.6 Statutory requirements

Registration requirements contained in V.1 (a)(3) and (4) and V. 10(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) (iv), (v), (ix) and (x) as well as V.10(e), (g) and (h).

<p>DEGREES AND DIPLOMAS CONFERRED/AWARDED IN THE FACULTY OF VETERINARY SCIENCE</p>

The following degrees and diplomas 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 – [BVScHons] (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)
- (g) Doctor of Philosophy – [PhD] (2 years)

- (h) Doctor of Veterinary Science – [DVSc]
- (i) Postgraduate Diploma in Veterinary Community Health – [DCH(Vet)] (2 years)
- (j) Postgraduate Diploma in Health Administration – [DHA(Vet)] (2 years)
(Under review – not offered in 2011)
- (k) 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, etc.

I. BACHELOR'S DEGREE

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

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

(a) Admission requirements

NB

- 1.1 Subject to the stipulations of General Regulation G.1., students who wish to be admitted to the old programme, must have:
a BSc (Veterinary Biology) degree;
OR
a related degree and successfully completed BSc (Veterinary Biology) II and III modules as required;
OR
a related degree and successfully completed related modules in an existing veterinary science degree programme at another university.
- 1.2 Subject to the stipulations of 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:

APS	Group A		Group B	
30	Two languages	Mathematics	Physical Science	Two additional subjects
	4 (one language must be English)	4 (provided Physical Science is at level 5)	4 (provided Mathematics is at level 5)	4

An admission point score (APS) of at least 30 will be required (the sum of the 6 highest performance levels 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

a related degree and successfully completed appropriate modules as required;

OR

- successfully completed related modules in an existing veterinary science degree programme at another university.
2. Admission to the programme 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 and **six years** in the new programme.

(c) General

- (i) 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 General Regulation G.10.4, a semester mark or year mark of at least 50% must be obtained in attendance modules. The stipulations of General Regulations G.12.1 to G.12.5 also apply.
- (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 old programme outstanding at the end of the relevant academic year:
 - GNS 420 General surgery
 - WDE 320 Planted pastures and fodder crops
 - ANV 601 Anaesthesiology
 - PHP 601 Porcine health and production
 - PLY 601 Poultry health and production
 - VBE 601 Veterinary business management and ethics
 - CBF 610 Cage bird and fish diseases
 - WOC 610 Wildlife, ostrich and crocodile health
- (v) A student who fails a module or modules in a year of study, has to repeat, subject to the stipulations of General Reg. 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 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 General Regulation G.3.2(b), a student will not be allowed to repeat the same year of study twice.
- (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

(i) First year of study

- | | | |
|------|---------|---|
| (1) | APH 400 | Applied physiology |
| (2) | CPE 400 | Companion animal ethology, handling and welfare |
| (3) | GOP 400 | General and organ pathology |
| (4) | VPH 400 | General pharmacology |
| (5) | GNS 420 | General surgery |
| (6) | ICS 401 | Introductory clinical studies |
| (7) | TOX 400 | Toxicology |
| (8) | VCA 400 | Veterinary comparative anatomy |
| (9) | VTP 400 | Introductory veterinary microbiology and parasitology |
| (10) | WDE 320 | Planted pastures and fodder crops |

(ii) Second year of study

- | | | |
|-----|---------|-------------------------------|
| (1) | SAC 500 | Small animal clinical studies |
| (2) | BHP 500 | Bovine health and production |

(iii) **Third year of study**

- | | | |
|-----|------------------|---|
| (1) | ANV 601 | Anaesthesiology |
| (2) | ECS 601 | Equine clinical studies |
| (3) | PHP 601 | Porcine health and production |
| (4) | PLY 601 | Poultry health and production |
| (5) | VBE 601 | Veterinary business management and ethics |
| (6) | SSH 601 | Small stock health and production |
| (7) | PHE 601 | Veterinary public health and applied epidemiology |
| (8) | Electives | |
| | CBF 610 | Cage bird and fish diseases |
| | WOC 610 | Wildlife, ostrich and crocodile health |

Students who would like to pursue an elective in research methodology should lodge an enquiry at Student Administration.

(9) **Attendance module**

- | | |
|---------|----------------------|
| DPT 620 | Diagnostic pathology |
|---------|----------------------|

(aa) Students have to attend 5 working days of clinic orientation in the Veterinary Academic Hospital before commencement of the clinic rotation programme.

(bb) **Supplementary examinations**

Supplementary examinations in first-semester modules take place after conclusion of the June examinations.

(iv) **Fourth year of study**

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

(aa) **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.

(bb) **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.

(cc) **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.

(dd) **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.

(ee) **Degree with distinction**

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

2. New curriculum

(i) **First year of study**

First semester

(1)	EOT 110	Academic literacy
(2)	CIL 111	Computer literacy
(3)	CMY 117	General chemistry
(4)	WTW 134	Mathematics
(5)	MLB 111	Molecular and cell biology
(6)	PHY 131	General physics
(7)	MTL 180	Medical terminology

Second semester

(1)	EOT 120	Academic literacy
(2)	CIL 121	Information literacy
(3)	BME 120	Biometry
(4)	CMY 127	General chemistry
(5)	GTS 161	Introductory genetics
(6)	VKU 122	Animal nutrition
(7)	VKU 120	Animal science
(8)	VPL 120	Veterinary professional life

II. HONOURS DEGREE

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

Also consult 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 information provided in the Syllabi section of 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 programme has to be completed within two years following first registration for the degree in the case of full-time study, and within three years in the case of part-time study.

(c) Curriculum

The curriculum consists of a number of modules, equivalent to a minimum of 24 and a maximum of 30 credits, chosen from the following list, or from relevant modules offered in other programmes of the Faculty and other faculties of the University as approved by the dean/s of the faculties concerned:

MODULE NAME	MODULE CODE
DISCIPLINE-BASED	
Anaesthesiology:	
Anaesthesiology	ANV 771, 772
Anatomy/Histology:	
Anatomy	ANG 774, 779
Histology	HIS 700
Clinical Pathology:	
Clinical pathology	KPA 701, 702
Ophthalmology:	
Ophthalmology	OFM 700
Pathology:	
Mechanisms of disease	PAT 771
Necropsy technique and interpretation	PAT 707
Ophthalmological pathology	PAT 708
Pathology	PAT 700
Reproductive pathology	PAT 709
Pharmacology:	
Clinical ophthalmic pharmacology and therapeutics	FAK 711
Physiology:	
Physiology	FSL 713, 787, 788
Reproductive physiology of animals	GSK 708
Surgery:	
Surgery	CHV 705
Surgery: Reproduction	CHV 706
Toxicology:	
Toxicology: Basic and clinical veterinary toxicology	TOK 701

Toxicology: Organic and inorganic poisons	TOK 704
Toxicology: Phyto- and mycotoxins	TOK 703
Veterinary Public Health:	
Veterinary public health fundamentals	VPH 700

SPECIES-BASED

LARGE STOCK/SMALL STOCK

Anatomy	ANG 704
Beef herd health	BKG 782
Bovine medicine: Gastrointestinal and production diseases	BOM 701
Bovine medicine: Diseases of the liver, cardiovascular, respiratory and urinary system	BOM 702
Bovine medicine: Neurology, musculoskeletal system, skin and appendages	BOM 703
Reproductive biology: Cattle	GSK 709
Clinical reproduction: Cattle	GSK 710
Clinical pharmacology: Ruminants	FAK 706
Dairy cattle herd health	BKG 781
Pathology: Ruminants	PAT 705
Production animal management	PAM 700
Radiology: Ruminants	DIM 785
Small stock herd health	KKS 780
Reproductive biology: Small stock	GSK 711
Clinical reproduction: Small stock	GSK 712
Non-radiological diagnostic imaging of ruminants	DIM 786

HORSES

Anatomy	ANG 703
Clinical pharmacology: Horses	FAK 707
Equine medicine	GEN 703
Reproductive biology: Horses	GSK 713
Clinical reproduction: Horses	GSK 714
Ophthalmology	OFM 700
Pathology: Horses	PAT 704
Radiology: Horses	DIM 783
Surgery: Horses	CHV 704
Non-radiological diagnostic imaging of horses	DIM 784

LABORATORY ANIMALS

Laboratory animal science	LAS 700
Toxicology: Laboratory toxicity testing	TOK 702
Veterinary research methodology	VRM 782

PIGS

Pathology: Pigs	PAT 703
Porcine health and production: Housing	PHP 701
Porcine health and production: Nutrition	PHP 702

POULTRY

Poultry health and production	PHP 771
Poultry nutrition	PVV 700

SMALL ANIMALS

Anatomy	ANG 705
Clinical pharmacology: Dogs and cats	FAK 775
Ophthalmology	OFM 700
Pathology: Dogs and cats	PAT 702
Radiology: Dogs and cats	DIM 781
Small animal medicine	GEN 702, 707
Small animal behavioural medicine	GEN 709
Reproductive biology: Dogs and cats	GSK 715
Clinical reproduction: Dogs and cats	GSK 716
Surgery: Small animals	CHV 703
Non-radiological diagnostic imaging of dogs and cats	DIM 782

WILDLIFE

Drugs used in wildlife and exotic species	FAK 708
Pathology: Wildlife	PAT 706
Reproductive biology: Wildlife	GSK 717
Clinical reproduction: Wildlife	GSK 718

See SYLLABI on web for the number of credits awarded to these modules.

- (i) 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 approved by the Dean, on the recommendation of the head of department in which the study for the master's degree will be undertaken. Credits obtained will be recognised in the MMedVet degree programme [see V.3(d)].
- (ii) If a candidate plans to register for an honours degree only, the selected modules are approved by the Dean, following consultation with the heads of department concerned.

(d) Registration

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

(e) Examinations

(Consult General Regulations G.18 and G.26.1)

In order to obtain the degree a student has to successfully complete all relevant modules. A student may not 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 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 students.
- (ii) To obtain the **degree with distinction**, a minimum of 60% is required in each module, as well as a proportionately calculated average of at least 75% for the degree as a whole.

III. MASTER'S DEGREES

V.3 Master of Veterinary Medicine [MMedVet]

Also consult General Regulations G.30 to G.44. 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 after having consulted the Syllabi on the web at: <http://web.up.ac.za/modules>

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.

(a) Fields of study

The MMedVet degree is offered in the following fields of study. The degree code, mini-dissertation code and total number of SAQA credits are indicated in respect of each field of specialisation.

	Field of study	Degree code	Mini-dissertation code	SAQA credits
1	Anaesthesiology (Anaes)	08250131	ANV 890	685
2	Cattle Herd Health (Bov)	08250231	BKG 890	640
3	Clinical Laboratory Diagnostics (Clin lab diag)	08250191	KDK 890	480
4	Diagnostic Imaging (DiagIm)	08250142	DIM 890	626
5	Laboratory Animal Science (LAS)	08250211	PFK 890	640
6	Medicine (Med)(Bov)	08250052	GEN 891	560
7	Medicine (Med)(Eq)	08250053	GEN 892	560
8	Medicine (Med)(Small Animals)	08250054	GEN 893	664
9	Ophthalmology (Ophth)	08250251	OFM 890	640
10	Pathology (Path)	08250101	PAT 890	462
11	Pharmacology (Pharm)	08251131	FAK 895	620
12	Pig Herd Health (Suill)	08250182	VKH 890	640
13	Poultry Diseases (Altil)	08250171	PVT 890	630
14	Reproduction (Gyn)	08250031	GSK 890	630
15	Small Stock Herd Health (CaprOv)	08250241	KKS 890	550
16	Surgery (Chir)(Eq)	08251121	CHV 894	797
17	Surgery (Chir)(Small Animals)	08250022	CHV 892	822
18	Toxicology (Tox)	08251141	TOK 890	480
19	Veterinary Ethology (VetEt)	08250082	VET 890	640
20	Veterinary Public Health (Hyg)	08250041	VVD 895	620
21	Wildlife Diseases (Fer)	08250221	WSK 890	650

(b) Admission

(i) Subject to the stipulations of General Regulations G.30 and G.62, 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. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

A student who wishes to commence studies for the MMedVet degree, and already has a BVScHons degree and complies with the requirements already mentioned, will retain credit for the modules concerned for a period of two years, unless the head of department decides otherwise.

(ii) Furthermore, a head of department has the prerogative to require, in addition to the requirements of the said regulation, an evaluation of a student, which may include practical components, or the setting of special conditions. A student may also be required to pass a proficiency test in English (TOEFL) at an acceptable level.

(iii) The number of students that can be admitted to the MMedVet degree programme annually, depends on the training capacity of a department and the number of available posts.

(c) Duration and attendance requirements

(i) For candidates who are already in possession of the BVScHons degree with the applicable modules, the degree programme extends over at least two years, with a maximum duration of four years. If all the required modules have to be included in the MMedVet curriculum, the programme extends over a maximum of six years.

(ii) 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.

(iii) Attendance requirements are determined in each individual case by the Dean (as recommended by the head of department concerned).

(iv) Candidates have to complete an acceptable module in research methodology successfully.

(v) 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.

(d) Curricula

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)

Specialist module	Core modules	Elective modules
Anaesthesiology ANV 800	Anatomy ANG 774	None
	Physiology FSL 787	
	Physiology FSL 788	
	Research methodology VRM 811	

2. MMedVet (Cattle Herd Health)

Specialist module	Core modules	Elective modules
Cattle herd health BKG 800	Veterinary epidemiology EPL 851	Any <u>two</u> appropriate postgraduate modules as approved by the HOD
	Veterinary epidemiology EPL 852	
	Research methodology VRM 811	

3. MMedVet (Clinical Laboratory Diagnostics)

Specialist module	Core modules	Elective modules
Clinical laboratory diagnostics KDK 800	Clinical pathology KPA 701	<u>Two of:</u> Mechanisms of disease PAT 771 Physiology FSL 787
	Clinical pathology KPA 702	
	Physiology FSL 713	
	Research methodology VRM 811	

4. MMedVet (Diagnostic Imaging)

Specialist module	Core modules	Elective modules
Diagnostic imaging DIM 870	Anatomy ANG 774	<u>One of:</u> Equine medicine GEN 703 Small animal medicine GEN 707
	Radiology: Dogs and cats DIM 781	
	Non-radiological diagnostic imaging of dogs and cats DIM 782	
	Radiology: Horses DIM 783	
	Non-radiological diagnostic imaging of horses DIM 784	
	Medical physics MFK 800	
	Research methodology VRM 811	

5. MMedVet (Laboratory Animal Science)

Specialist module	Core modules	Elective modules
Laboratory animal science PFK 800	Laboratory animal science LAS 700	Any <u>two</u> appropriate postgraduate modules as approved by the HOD
	Toxicology: Laboratory toxicity testing TOK 702	
	Veterinary research methodology VRM 782	
	Research methodology VRM 811	

6. MMedVet (Medicine)(Bovine)

Specialist module	Core modules	Elective modules
Bovine medicine GEN 801	Selected infectious diseases: Cattle SID 812	Any <u>two</u> appropriate postgraduate modules as approved by the HOD
	Research methodology VRM 811	
	Veterinary epidemiology EPL 851	
	Clinical pharmacology: Ruminants FAK 706	

7. MMedVet (Medicine)(Equine)

Specialist module	Core modules	Elective modules
Equine medicine GEN 802	Clinical pharmacology: Horses FAK 707	<u>One of:</u> Clinical pathology KPA 701 Clinical pathology KPA 702 Clinical reproduction: Horses GSK 714 Ophthalmology OFM 700 Pathology: Horses PAT 704 Radiology: Horses DIM 783 Surgery: Horses CHV 704 Non-radiological diagnostic imaging of horses DIM 784
	Physiology FSL 787	
	Research methodology VRM 811	

8. MMedVet (Medicine)(Small Animals)

Specialist module	Core modules	Elective modules
Small animal medicine GEN 803	Small animal medicine GEN 702	<u>One of:</u> Clinical pathology KPA 701 Clinical pathology KPA 702 Radiology: Dogs and cats DIM 781 Non-radiological diagnostic imaging of dogs and cats DIM 782 <u>Two of:</u> Anaesthesiology ANV 771 Mechanisms of disease PAT 771 Clinical pharmacology: Dogs and cats FAK 775 Physiology FSL 787
	Small animal medicine GEN 707	
	Research methodology VRM 811	

		Radiology: Dogs and cats DIM 781 Non-radiological diagnostic imaging of dogs and cats DIM 782
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9. MMedVet (Ophthalmology)

Specialist module	Core modules	Elective modules
Ophthalmology OFM 800	Anatomy ANG 774	None
	Clinical ophthalmic pharmacology and therapeutics FAK 711	
	Ophthalmological pathology PAT 708	
	Physiology FSL 788	
	Research methodology VRM 811	

10. MMedVet (Pathology)

Specialist Module	Core modules	Elective modules
Pathology PAT 800	Histology HIS 700	Any appropriate postgraduate module approved by the HOD
	Pathology PAT 700	
	Research methodology VRM 811	

11. MMedVet (Pharmacology)

Specialist module	Core modules	Elective modules
Pharmacology FAK 800	Advanced fundamentals of pharmacology FAK 876	Any <u>two</u> appropriate postgraduate modules approved by the HOD
	Veterinary epidemiology EPL 852	
	Veterinary industrial pharmacology VIP 800	
	Research methodology VRM 811	

or

Specialist module	Core modules	Elective modules
Pharmacology FAK 800	Advanced fundamentals of pharmacology FAK 876	Any <u>two</u> appropriate postgraduate modules approved by the HOD
	Clinical pharmacology FAK 877	
	Physiology FSL 713	
	Research methodology VRM 811	

12. MMedVet (Pig Herd Health)

Specialist module	Core modules	Elective modules
Pig herd health VKH 800	Selected infectious diseases: Animal health management SID 811	Any <u>two</u> appropriate postgraduate modules as approved by the HOD
	Selected infectious diseases: Pigs SID 815	
	Research methodology VRM 811	

13. MMedVet (Poultry Diseases)

Specialist module	Core modules	Elective modules
Poultry health and production PHP 800	Poultry health and production PHP 771	None
	Poultry nutrition PVV 700	
	Research methodology VRM 811	

14. MMedVet (Reproduction)

Specialist module	Core modules	Elective modules
Reproduction GSK 800	Clinical reproduction: Cattle GSK 710 Clinical reproduction: Small stock GSK 712 Clinical reproduction: Horses GSK 714 Clinical reproduction: Dogs and cats GSK 716	<u>Two of:</u> Reproductive physiology of animals GSK 708 Reproductive biology: Cattle GSK 709 Reproductive biology: Small stock GSK 711 Reproductive biology: Horses GSK 713 Reproductive biology: Dogs and cats GSK 715 Reproductive pathology PAT 709 Anatomy ANG 779
	Research methodology VRM 811	

15. MMedVet (Small Stock Herd Health)

Specialist module	Core modules	Elective modules
Small stock herd health KKS 800	Small stock herd health KKS 780	Any <u>two</u> appropriate postgraduate modules as approved by the HOD
	Research methodology VRM 811	

16. MMedVet (Surgery)(Equine)

Specialist module	Core modules	Elective modules
Surgery CHV 804	Anatomy ANG 703	One of: Anaesthesiology ANV 771 Equine medicine GEN 703 Clinical reproduction: Horses GSK 714 Reproductive Biology: Horses GSK 713 Ophthalmology OFM 700
	Radiology: Horses DIM 783	
	Non-radiological diagnostic imaging of horses DIM 784	
	Research methodology VRM 811	

17. MMedVet (Surgery)(Small Animals)

Specialist module	Core modules	Elective modules
Surgery CHV 803	Anaesthesiology ANV 771	None
	Anatomy ANG 705	
	Radiology: Dogs and cats DIM 781	
	Non-radiological diagnostic imaging of dogs and cats DIM 782	
	Research methodology VRM 811	

18. MMedVet (Toxicology)

Specialist module	Core modules	Elective modules
Toxicology TOK 800	Toxicology: Basic and clinical veterinary toxicology TOK 701	Any appropriate postgraduate module approved by the HOD
	Veterinary epidemiology EPL 852	
	Research methodology VRM 811	
	Two of: Toxicology: Laboratory toxicity testing TOK 702 Toxicology: Organic and inorganic poisons TOK 704 Toxicology: Phyto- and mycotoxins TOK 703	

19. MMedVet (Ethology)

Under review – will not be offered in 2011

20. MMedVet (Veterinary Public Health)

Specialist module	Core modules	Elective modules
Veterinary public health VVD 800	Veterinary epidemiology EPL 851	Any appropriate postgraduate module approved by the HOD
	Veterinary public health VPH 881, 882, 883, 884	
	Research methodology VRM 811	

21. MMedVet (Wildlife Diseases)

Specialist module	Core modules	Elective modules
Veterinary wildlife studies WLS 800	Drugs used in wildlife and exotic species FAK 708	Any <u>two</u> appropriate postgraduate modules as approved by the HOD
	Pathology: Wildlife PAT 706	
	Veterinary epidemiology EPL 851	
	Research methodology VRM 811	

(e) **Conferment of degree**

The MMedVet degree is conferred by virtue of an examination and a mini-dissertation.

(f) **Examinations**

(Consult General Regulations G.32 and G.40)

- (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.

(g) Mini-dissertation

Also consult General Regulations G.57 to G.61.

- (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 General Regulation G.61.)
- (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.

(h) 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.

V.4. Master of Science in Veterinary Science [MSc (Veterinary Science)]
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Also consult General Regulations G.30 to G.44.

The MSc degree in Veterinary Science is a research degree.

(a) Requirements for admission

Subject to the stipulations of General Regulations G.30 and G.62, a BScHons, a four-year BScAgric, 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.

Candidates who are accepted for the MSc degree programme have to complete an acceptable module in research methodology successfully. In certain cases, it remains the prerogative of the head of department to require, in addition to the entrance requirements already mentioned, an appropriate honours degree, or 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) Duration

The programme extends over a minimum period of one year, and a maximum of three years.

(c) Field of study

Total number of SAQA credits: 240

The MSc degree programme is offered by the following departments:

(i)	Anatomy and Physiology	08251002	VWE 802
(ii)	Companion Animal Clinical Studies	08251003	VWE 803
(iii)	Paraclinical Sciences	08251004	VWE 804
(iv)	Production Animal Studies	08251005	VWE 805
(v)	Veterinary Tropical Diseases	08250901	VWE 801

(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 General Regulations G.57 to G.61 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 General Regulation G.61.)

(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 General Regulations G.30 to G.44. 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 after having consulted the Syllabi on the web at: <http://web.up.ac.za/modules>

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 General Regulation G.62, 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).

(b) Duration

The programme extends over a minimum period of one year full-time and two years part-time, and a maximum of three years.

(c) Curriculum

Total number of SAQA credits: 240

The curriculum consists of Veterinary industrial pharmacology as the special field of study; Fundamentals of pharmacology and Research methodology as additional core modules; and a number of elective modules equivalent to a prescribed number of credits, chosen from the following list, or from relevant general or species-based modules offered in other programmes in the Faculty and/or other faculties of the University approved by the Dean on the recommendation of the head of department.

Modules

Core modules (compulsory)

VIP 800	Veterinary industrial pharmacology
FAK 876	Advanced fundamentals of pharmacology
VRM 811	Research methodology

Elective modules

Discipline-based

CAH 811	Community-based animal health: Building communities
CAH 812	Community-based animal health: Veterinary communication and extension
HEI 811	Helminth infections: Companion animals
HEI 812	Helminth infections: Equids

HEI 813	Helminth infections: Ruminants
HEI 814	Helminth infections: Wildlife
EIP 811	Ectoparasitic infestations and protozoal infections: Companion animals
EIP 813	Ectoparasitic infestations and protozoal infections: Ruminants
EIP 814	Ectoparasitic infestations and protozoal Infections: Wildlife
SID 811	Selected infectious diseases: Animal health management
SID 812	Selected infectious diseases: Cattle
SID 813	Selected infectious diseases: Companion animals
SID 814	Selected infectious diseases: Equids
SID 815	Selected infectious diseases: Pigs
SID 816	Selected infectious diseases: Small stock
SID 817	Selected infectious diseases: Wildlife

(d) Conferment of degree

The MSc (Veterinary Industrial Pharmacology) degree is conferred by virtue of the successful completion of modules and a mini-dissertation.

(e) 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.

(f) Mini-dissertation

Also consult General Regulations G.57 to G61

Candidates must submit a mini-dissertation (VIP 890) equivalent to a maximum of 100 credits, 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 General Regulation G.61.

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.

(g) Pass with distinction

In order to obtain the degree with distinction, a minimum pass mark of 60% in all core modules and 75% in the examination in the special field of study and the mini-dissertation together are required.

<p>V.6. Master of Science in Veterinary Tropical Diseases [MSc (Veterinary Tropical Diseases)] (Code 08251007)</p>

Also consult General Regulations G.30 to G.44. 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 after having consulted the Syllabi on the web at: <http://web.up.ac.za/modules>

(a) Requirements for admission

Subject to the stipulations of General Regulation G.62, a BVSc, a four-year BSc in Agriculture (Animal Science), Microbiology, Zoology or Entomology or an 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 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) Duration

The programme extends over a minimum period of one year full-time and two years part-time, and a maximum of three years.

(c) Curriculum

Total number of SAQA credits: minimum of 240

Modules: 140-155

Mini-dissertation: 100

Total: 240-255

The curriculum consists of core and elective modules as well as a mini-dissertation. Core and elective modules are grouped into specific career paths. In special circumstances a module may be exchanged with another module in a career path with the approval of the head of department. Other modules may be selected from the list, or from relevant modules offered in other programmes in the Faculty and/or other faculties of the University approved by the Dean on the recommendation of the head of the department

This is primarily a web-based modular degree programme.

This degree programme caters for the needs of candidates who wish to acquire information on such aspects as the epidemiology, diagnosis and control/eradication of infectious and parasitic diseases of domestic animals and wildlife or would like to develop specific knowledge and technical skills that are required to make a diagnosis in microbiology (eg bacteriology, virology, immunology), parasitology (eg helminthology, ectoparasitology, protozoology) and molecular biology.

The degree programme is structured in such a way that a learner can achieve a qualification in a specific field of study. The following career paths are catered for:

1. Laboratory-orientated career in microbiology or parasitology;
2. Veterinary field services;
3. General practice in either wildlife, mixed cattle and wildlife, or mixed production animals

The following career paths are possible:

1. Laboratory-orientated career paths

1.1 Microbiology: Bacteriology

Successful completion of the degree programme will equip the candidate with the required competencies and laboratory skills to isolate and identify bacteria and fungi and to perform serological techniques applicable to bacteria, and molecular techniques used in diagnostic and research laboratories. The candidate will also be equipped to develop a protocol and to conduct a research project.

Modules to be completed:

	Modules	Credits
VRM 811	Research methodology (Core module)	20
LPK 811	Laboratory practice	20
AVB 817	Applied veterinary bacteriology and mycology	35
ASR 811	Applied serology	30
VMB 816	Molecular biology	40
Total credits		145

1.2 **Microbiology: Virology**

Successful completion of the degree programme will equip the candidate with the required competencies and laboratory skills to isolate and identify viruses and to perform serological techniques applicable to viruses, and molecular techniques used in diagnostic and research laboratories. The candidate will also be equipped to develop a protocol and to conduct a research project.

Modules to be completed:

	Modules	Credits
VRM 811	Research methodology (Core module)	20
LPK 811	Laboratory practice	20
ASR811	Applied serology	30
AVV 811	Applied virology: General theory	10
AVV 815	Applied veterinary virology: Virus identification	20
VMB 816	Molecular biology	40
Total credits		140

1.3 **Parasitology: Helminthology and ectoparasitology**

Successful completion of this degree programme will equip the candidate with the required laboratory skills to identify helminths, ectoparasites and protozoa of companion animals, equids, ruminants and wildlife, which specimens to collect and how these should be prepared for identification. The candidate will also be equipped to develop a research protocol and to conduct a research project.

Modules to be completed:

Option 1

	Modules	Credits
VRM 811	Research methodology (Core module)	20
EPL 851	Veterinary epidemiology (Core module)	16
AVE 811	Applied veterinary ectoparasitology and protozoology	25
AVH 811	Applied veterinary helminthology	25
EIP 811	Ectoparasitic infestations and protozoal infections: Companion animals	10
EIP 813	Ectoparasitic infestations and protozoal infections: Ruminants	10
EIP 814	Ectoparasitic infestations and protozoal infections: Wildlife	5
HEI 811	Helminth infections: Companion animals	5
HEI 812	Helminth infections: Equids	5
HEI 813	Helminth infections: Ruminants	10
HEI 814	Helminth infections: Wildlife	10
Total credits		141

Option 2

	Modules	Credits
VRM 811	Research methodology (Core module)	20
EPL 851	Veterinary epidemiology (Core module)	16

AVE 811	Applied veterinary ectoparasitology and protozoology	25
EIP 813	Ectoparasitic infestations and protozoal infections: Ruminants	10
TCK 811	Ticks	30
TSE 811	Tsetse and trypanosomosis	45
Total credits		146

1.4 **Parasitology: Ectoparasitology**

Successful completion of this degree programme will equip the candidate with the required laboratory skills to identify ectoparasites of companion animals, equids and ruminants. The candidate will also be skilled in field surveys, including collection and preparation of specimens for identification and will be able to develop a research protocol and to conduct a research project.

Modules to be completed:

	Modules	Credits
VRM 811	Research methodology (Core module)	20
EPL 851	Veterinary epidemiology (Core module)	16
AVE 811	Applied veterinary ectoparasitology and protozoology	25
EIP 811	Ectoparasitic infestations and protozoal infections: Companion animals	10
EIP 813	Ectoparasitic infestations and protozoal infections: Ruminants	10
TCK 811	Ticks	30
TSE 811	Tsetse and trypanosomosis	45
Total credits		156

1.5 **Ticks and tick-borne diseases and tsetse and trypanosomosis**

Successful completion of this degree programme will equip the candidate with the required laboratory skills to identify ticks, tsetse flies and trypanosomes of companion animals, equids, ruminants and wildlife. The candidate will also be skilled in field surveys, including collection and preparation of specimens for identification, will have a thorough understanding of the diseases caused by tick- and tsetse-transmitted pathogens, and will also be equipped to develop a research protocol and to conduct a research project.

Modules to be completed:

	Modules	Credits
VRM 811	Research methodology (Core module)	20
CAH 812	Community-based animal health: Veterinary communication and extension (Core module)	6
CAH 813	Community-based animal health: Veterinary service delivery (Core module)	7
EPL 851	Veterinary epidemiology (Core module)	16
TBD 811	Tick-borne diseases: Companion animals	5
TBD 813	Tick-borne diseases: Ruminants	15
TBD 814	Tick-borne diseases: Wildlife	5

TCK 811	Ticks	30
TSE 811	Tsetse and trypanosomosis	45
Total credits		149

1.6 Ectoparasitology: Tsetse and trypanosomosis

Successful completion of this degree programme will equip the candidate with the required laboratory skills to identify ectoparasites and protozoa of companion animals, equids, ruminants and wildlife, with special emphasis on tsetse flies and trypanosomes. The candidate will also be skilled in field surveys, including collection and preparation of specimens for identification, will have a thorough understanding of the clinical manifestation of ectoparasitic infestations and protozoal infections and will be equipped to develop a research protocol and to conduct a research project.

Modules to be completed:

	<u>Modules</u>	<u>Credits</u>
VRM 811	Research methodology (Core module)	20
CAH 812	Community-based animal health: Veterinary communication and extension (Core module)	6
CAH 813	Community-based animal health: Veterinary service delivery (Core module)	7
EPL 851	Veterinary epidemiology (Core module)	16
AVE 811	Applied veterinary ectoparasitology and protozoology	25
EIP 811	Ectoparasitic infestations and protozoal infections: Companion animals	10
EIP 813	Ectoparasitic infestations and protozoal infections: Ruminants	10
EIP 814	Ectoparasitic infestations and protozoal infections: Wildlife	5
TSE 811	Tsetse and trypanosomosis	45
Total credits		144

2. Veterinary field services career path

Successful completion of the degree programme will equip the candidate with the competencies, knowledge and skills to diagnose and control the important infectious diseases of cattle, with special reference to sub-Saharan Africa. The curriculum includes information on tick-borne diseases, ticks, tsetse and trypanosomosis. The candidate will also be equipped to develop a protocol and to conduct a research project.

Modules to be completed:

Option 1

	<u>Modules</u>	<u>Credits</u>
VRM 811	Research methodology (Core module)	20
CAH 811	Community-based animal health: Building communities (Core module)	7
CAH 812	Community-based animal health: Veterinary communication and extension (Core module)	6
CAH 813	Community-based animal health: Veterinary service delivery (Core module)	7

EPL 851	Veterinary epidemiology (Core module)	16
SID 811	Selected infectious diseases: Animal health management	25
SID 812	Selected infectious diseases: Cattle	25
TBD 813	Tick-borne diseases: Ruminants	15
TCK 811	Ticks	30
Total credits		151

Option 2

	Modules	Credits
VRM 811	Research methodology (Core module)	20
CAH 811	Community-based animal health: Building communities (Core module)	7
CAH 812	Community-based animal health: Veterinary communication and extension (Core module)	6
CAH 813	Community-based animal health: Veterinary service delivery (Core module)	7
EPL 851	Veterinary epidemiology (Core module)	16
SID 811	Selected infectious diseases: Animal health management	25
SID 812	Selected infectious diseases: Cattle	25
TSE 811	Tsetse and trypanosomosis	45
Total credits		150

3. General practice career paths

3.1 Wildlife

Successful completion of the degree programme will equip the candidate with the competencies and knowledge required in private veterinary wildlife practice and related career paths in nature conservation or game farm management. The curriculum includes information on the parasitic and infectious diseases of wildlife (particularly at the wildlife-domestic animal interface) and their control, arthropod vectors of some of these diseases, and community-based animal health relating to communities adjacent to wildlife conservancies. The candidate will also be equipped to develop a protocol and to conduct a research project.

Modules to be completed:

	Modules	Credits
VRM 811	Research methodology (Core module)	20
EPL 851	Veterinary epidemiology (Core module)	16
EIP 814	Ectoparasitic infestations and protozoal infections: Wildlife	5
HEI 814	Helminth infections: Wildlife	10
SID 817	Selected infectious diseases: Wildlife	20
TBD 814	Tick-borne disease: Wildlife	5
TCK 811	Ticks	30
TSE 811	Tsetse and trypanosomosis	45
Total credits		151

3.2 **Cattle/Wildlife**

Successful completion of the degree programme will equip the candidate with the competencies and knowledge required in private veterinary practice where the wildlife-livestock interface represents an important component. The curriculum includes information on the parasitic and infectious diseases of wildlife (particularly at the wildlife-domestic animal interface) and their control, arthropod vectors of some of these diseases, and community-based animal health relating to communities adjacent to wildlife conservancies. The candidate will also be equipped to develop a protocol and to conduct a research project.

Modules to be completed:

Option 1

	Modules	Credits
VRM 811	Research methodology (Core module)	20
EPL 851	Veterinary epidemiology (Core module)	16
EIP 813	Ectoparasitic infestations and protozoal infections: Ruminants	10
EIP 814	Ectoparasitic infestations and protozoal infections: Wildlife	5
HEI 813	Helminth infections: Ruminants	10
SID 812	Selected infectious diseases: Cattle	25
SID 817	Selected infectious diseases: Wildlife	20
TBD 814	Tick-borne diseases: Wildlife	5
TSE 811	Tsetse and trypanosomosis	45
Total credits		156

Option 2

	Modules	Credits
VRM 811	Research methodology (Core module)	20
EPL 851	Veterinary epidemiology (Core module)	16
EIP 813	Ectoparasitic infestations and protozoal infections: Ruminants	10
EIP 814	Ectoparasitic infestations and protozoal infections: Wildlife	5
HEI 814	Helminth infections: Wildlife	10
SID 812	Selected infectious diseases: Cattle	25
SID 817	Selected infectious diseases: Wildlife	20
TBD 813	Tick-borne diseases: Ruminants	15
TBD 814	Tick-borne diseases: Wildlife	5
TCK 811	Ticks	30
Total credits		156

3.3 **Production animals**

Successful completion of the degree programme will equip the candidate with the competencies and knowledge required in private veterinary practice. The curriculum includes information on the parasitic and infectious diseases of cattle and small stock, especially their diagnosis and control. The candidate will also be equipped to develop a protocol and to conduct a research project.

Modules to be completed:

Option 1

	Modules	Credits
VRM 811	Research methodology (Core module)	20
EIP 813	Ectoparasitic infestations and protozoal infections: Ruminants	10
HEI 813	Helminth infections: Ruminants	10
SID 811	Selected infectious diseases: Animal health management	25
SID 812	Selected infectious diseases: Cattle	25
TBD 813	Tick-borne diseases: Ruminants	15
TSE 811	Tsetse and trypanosomosis	45
Total credits		150

Option 2

	Modules	Credits
VRM 811	Research methodology (Core module)	20
HEI 813	Helminth infections: Ruminants	10
SID 811	Selected infectious diseases: Animal health management	25
SID 812	Selected infectious diseases: Cattle	25
SID 816	Selected infectious diseases: Small stock	25
TBD 813	Tick-borne diseases: Ruminants	15
TCK 811	Ticks	30
Total credits		150

Modules

VRM 811	Research methodology
CAH 811	Community-based animal health: Building communities
CAH 812	Community-based animal health: Veterinary communication and extension
CAH 813	Community-based animal health: Veterinary service delivery
LPK 811	Laboratory practice
AVB 817	Applied veterinary bacteriology and mycology
ASR 811	Applied serology
AVH 811	Applied veterinary helminthology
AVE 811	Applied veterinary ectoparasitology and protozoology
AVV 811	Applied virology: General theory
AVV 815	Applied veterinary virology: Virus identification
VMB 816	Molecular biology
TCK 811	Ticks
TBD 811	Tick-borne diseases: Companion animals
TBD 813	Tick-borne diseases: Ruminants
TBD 814	Tick-borne diseases: Wildlife

TSE 811	Tsetse and trypanosomosis
HEI 811	Helminth infections: Companion animals
HEI 812	Helminth infections: Equids
HEI 813	Helminth infections: Ruminants
HEI 814	Helminth infections: Wildlife
EIP 811	Ectoparasitic infestations and protozoal infections: Companion animals
EIP 813	Ectoparasitic infestations and protozoal infections: Ruminants
EIP 814	Ectoparasitic infestations and protozoal infections: Wildlife
SID 811	Selected infectious diseases: Animal health management
SID 812	Selected infectious diseases: Cattle
SID 813	Selected infectious diseases: Companion animals
SID 814	Selected infectious diseases: Equids
SID 815	Selected infectious diseases: Pigs
SID 816	Selected infectious diseases: Small stock
SID 817	Selected infectious diseases: Wildlife

(d) Conferment of degree

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

The final mark will be calculated as follows:

Modules:	60%
Mini-dissertation:	40%

(e) Examination

The degree is conferred on a student who has obtained at least 50% for every module and at least 50% for the mini-dissertation.

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

(f) Mini-dissertation

Consult Regulations G.32 and G.40.

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.

Mini-dissertation: 100 credits (VTS 890)

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 General Regulations G.57 to G.61.)

(g) Pass with distinction

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

IV. DOCTORATES

V.7. Doctor of Philosophy [PhD]

Also consult General Regulations G.45 to G.55.

(a) Admission requirements

Subject to the stipulations of General Regulation G.62, 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 (ie 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 PhD degree is offered by the following departments:

(i) Anatomy and physiology	08261002	VWE 902
(ii) Companion animal clinical studies	08261003	VWE 903
(iii) Paraclinical sciences	08261004	VWE 904
(iv) Production animal studies	08261005	VWE 905
(v) Veterinary tropical diseases	08260271	VWE 901

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 General Regulation G.57. Each candidate must satisfy the Dean on the recommendation of 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.

(c) Duration

Consult General Regulation G.51.

The study extends over a minimum period of two years, with a maximum of six years.

(d) Conferment of degree

The PhD degree is conferred by virtue of the successful completion of a thesis and an oral examination. Consult General Regulation G. 60.4(e).

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 General Regulation G.61.

Also consult General Regulations G.57 to G.61 with regard to the submission and technical editing of the thesis.

V. 8 Doctor of Veterinary Science [DVSc]

The DVSc degree is conferred by virtue of publications (consult General Regulation G.56).

(i) Anatomy and physiology	08260002
(ii) Companion animal clinical studies	08260003
(iii) Paraclinical sciences	08260005
(iv) Production animal studies	08260004
(v) Veterinary tropical diseases	08260006

V. POSTGRADUATE DIPLOMAS

Please note: The DHA(Vet) programme is under review and will not be offered in 2011.

(a) Requirements for admission

Subject to the stipulations of General Regulation G.62, a BVSc, BVMCh or equivalent degree is required. A student may be required to pass a proficiency test in English (TOEFL) at an acceptable level.

(b) Duration

The programme extends over at least two academic years full-time and three years part-time.

(c) Examinations

Students must comply with all the academic and practical requirements of the various modules to the satisfaction of the head of department before they will be admitted to the examinations, and must pass the prescribed written, oral and/or practical examinations in all the modules.

A minimum examination mark of 50% is required in each of the theoretical and practical sections of a module for which a year or semester mark is not required. However, in cases where a semester or a year mark is required, a minimum semester or year mark of 40% must be obtained in each section for admission to the examination. A subminimum of 40% in the examination, and at least 50% as a final mark are required to pass in the theoretical and practical sections. Instructions regarding semester, year or examination marks contained in the departmental manuals, are brought to the specific attention of students.

Life Sciences	4 (50-59%)
Mathematics	4 (50-59%)
Physical Sciences	4 (50-59%)
Alternative subject 1	3 (40-49%)
Alternative subject 2	3 (40-49%)

A minimum Admission Point Score (APS) of 22 will be required [calculated from the achievement level obtained in English, Life Sciences, Mathematics and Physical Sciences and the two best alternative subjects [(4x4+2x3) = (16+6) = 22]]

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

- (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 (ie written and/or oral) and the practical part (where applicable) of the examinations contribute an equal amount (ie 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:

- FAK 120 Pharmacology
- LTG 120 Laboratory technique
- MBI 111 Microbiology
- AVP 111 General nursing
- VET 110 Veterinary ethology
- PAR 120 Parasitology
- MVP 120 Medical nursing
- TPR 120 Theatre practice
- GSV 120 Reproductive nursing

(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 five 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.10(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 Regulation 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: 355

(i) First year of study

- | | |
|---------|--------------------------|
| ANG 104 | Anatomy 104 |
| FAK 120 | Pharmacology 120 |
| FSL 104 | Physiology 104 |
| VET 110 | Veterinary ethology 110 |
| LTG 120 | Laboratory technique 120 |
| MBI 111 | Microbiology 111 |
| AVP 111 | General nursing 111 |
| PAR 120 | Parasitology 120 |

Promotion modules

- | | |
|---------|---------------------|
| MVP 120 | Medical nursing 120 |
|---------|---------------------|

TPR 120	Theatre practice 120
GSV 120	Reproductive nursing 120

- (aa) **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.
- (bb) **Supplementary examinations:** Subject to the provisions of Regulation V.10(d)(iii), 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 June examinations. The provisions of Regulation V.10(d)(v) also apply.
- (ii) **Second year of study**
- | | |
|---------|--------------------------|
| MVP 200 | Medical nursing 200 |
| CVP 200 | Surgical nursing 200 |
| TPR 200 | Theatre practice 200 |
| NAR 200 | Anaesthesiology 200 |
| RAV 200 | Radiography 200 |
| GSV 200 | Reproductive nursing 200 |
- (aa) **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.
- (bb) **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.
- (cc) **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.

- (dd) **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.10(e), unless the Dean decides otherwise.
- (ee) **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%
hpw = hours per week
LP = Lecturer's permission
lpw = lectures per week
ppw = practicals per week
spw = seminars per week
TDH = Permission by head of department
tpw = tutorials per week

UNDERGRADUATE

ANG 104 Anatomy 104

Academic organisation: Anatomy and Physiology

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

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 DipVetNurs students.

ANV 601 Anaesthesiology 601

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 1: 2 lpw Block 2: 1 lpw

Period of presentation: Year

Language of tuition: English

Credits: 6

APH 400 Applied physiology 400

Academic organisation: Anatomy and Physiology

Contact time: 2 lpw

Period of presentation: Year

Language of tuition: English

Credits: 7

Module content:

Applied physiology of domestic and farm animals.

AVP 111 General nursing 111

Academic organisation: Production Animal Studies

Contact time: Block 1: 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.

BHP 500 Bovine health and production 500

Academic organisation: Production Animal Studies

Contact time: 15 lpw

Period of presentation: Year

Language of tuition: English

Credits: 70

Module content:

The diagnosis, treatment and control of diseases in cattle.

Aspects of clinical veterinary science, including components of contagious and parasitic diseases, clinical diagnosis, clinical pathology, diagnostic imaging, therapeutics, medicine, surgery, reproduction, pathology and applied nutrition and 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.

CBF 610 Cage bird and fish diseases 610

Academic organisation: Companion Animal Clinical Studies

Contact time: 3 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 6

Module content:

Theoretical module covering:

Avian: housing and biosecurity; nutrition and nutritional diseases; special equipment and caging for avian practice; anatomy, physical examination and history taking; haematology and clinical chemistry; pharmacology, endoparasites, ectoparasites, protozoal, rickettsial, fungal, bacterial and viral diseases; diseases, species specific conditions and syndromes; radiology, anaesthesia and selected procedures.

Fish: husbandry, clinical work-up, endoparasites and ectoparasites; bacterial, fungal and viral diseases and treatments.

CPE 400 Companion animal ethology, handling and welfare 400

Academic organisation: Companion Animal Clinical Studies

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

Period of presentation: Year

Language of tuition: English

Credits: 15

Module content:

Introduction to the fundamentals of the behaviour, handling, genetics, management, nutrition and welfare of dogs, cats and horses and other non-production animal species.

Compulsory practical sessions will provide students with the basic handling skills needed for examining and treating companion animal patients.

Student seminars will teach research and presentation skills and provide applied

insight into topical issues regarding the welfare, behaviour and nutrition of companion animals.

CVP 200 Surgical nursing 200

Academic organisation: Companion Animal Clinical Studies

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

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.

DPT 620 Diagnostic pathology 620

Academic organisation: Paraclinical Sciences

Contact time: Block 2: 3 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 6

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.

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.

FSL 104 Physiology 104

Academic organisation: Anatomy and Physiology

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

GNS 420 General surgery 420

Academic organisation: Companion Animal Clinical Studies

Contact time: 3 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 6

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 400 General and organ pathology 400

Academic organisation: Paraclinical Sciences

Contact time: Block 1: 8 lpw Block 2: 4 lpw

Period of presentation: Year

Language of tuition: English

Credits: 22

Module content:

Definitions, terminology and the pathogenesis of basic lesions in tissue and organs, including causes of diseases, reversible cell damage, pigmentations, necrosis, apoptosis, circulatory disturbances, inflammations, immunopathology, growth disturbances and neoplasma on a histological and macroscopic basis. Organ pathology (with the emphasis on macroscopic changes and pathogenesis) of the various organ systems of the body.

GSV 120 Reproductive nursing 120

Academic organisation: Production Animal Studies

Contact time: Block 2: 2 lpw 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 per block

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.

ICS 401 Introductory clinical studies 401

Academic organisation: Companion Animal Clinical Studies

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 11

Module content:

Introductory clinical diagnostics and clinical problem solving through the integration of clinical case data, basic pathophysiology and clinical pathology. Departments involved include Anatomy and Physiology, Companion Animal Clinical Studies and Production Animal Studies

LTG 120 Laboratory technique 120

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 2: 6 lpw

Period of presentation: Semester 2

Language of tuition: English

Credits: 11

Module content:

*Lectures offered by various departments

Maintenance and handling of laboratory equipment.

Collecting and dispatching samples. Elementary haematology. Preparation and examination of skin scrapings, excretion samples, bacteriological and urine samples, as well as elementary clinical chemistry.

MBI 111 Microbiology 111

Academic organisation: Veterinary Tropical Diseases

Contact time: 5 lpw 2 ppw

Period of presentation: Semester 1

Language of tuition: English

Credits: 10

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

Contact time: Block 3: 6 lpw Block 4: 470 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. Medical nursing and emergency management of companion and production animals. 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.

PAB 300 Production animal behaviour, handling and welfare 300

Academic organisation: Production Animal Studies

Prerequisite: Prerequisite: Only students selected for BSc (Veterinary Biology) III

Contact time: 1 ppw 1 lpw

Period of presentation: Year

Language of tuition: English

Credits: 12

Module content:

Introduction to the normal behavioural repertoire of cattle, pigs, sheep and goats and selected economically important behavioural aberrations and their prevention. Animal welfare aspects of these behavioural patterns.

Practical animal handling and the development of proficiency in a range of farm animal procedures.

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.

PHE 601 Veterinary public health and applied epidemiology 601

Academic organisation: Paraclinical Sciences

Contact time: Block 2: 5 lpw Block 1: 6 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: 10ppw

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 601 Porcine health and production 601

Academic organisation: Production Animal

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 11

Module content:

Theoretical training in pig parasitic and infectious diseases, herd health and management programmes to integrate and apply the knowledge of relevant veterinary courses with a view to identifying and solving problems on a herd basis. Further to improve the health status and production effectiveness of intensive and extensive piggeries from a holistic and cost-effective viewpoint.

Departments involved in lectures: Anatomy and Physiology, Production Animal Studies and Veterinary Tropical Diseases.

PHP 650 Applied porcine health and production 650

Academic organisation: Production Animal Studies

Contact time: 1.5 ppw

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.

PLY 601 Poultry health and production 601

Academic organisation: Production Animal Studies

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 11

Module content:

Theoretical training in poultry parasitic and infectious diseases, flock health and management programmes to integrate and apply relevant veterinary knowledge with a view to identifying and solving problems on a flock basis. Further to improve the health status and production effectiveness of intensive and extensive poultry flocks from a holistic and cost-effective viewpoint.

Departments involved in lectures: Anatomy and Physiology, Production Animal Studies and Veterinary Tropical Diseases.

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.

RAV 200 Radiography 200

Academic organisation: Companion Animal Clinical Studies

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

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.

SAC 500 Small animal clinical studies 500

Academic organisation: Companion Animal Clinical Studies

Contact time: 15 lpw

Period of presentation: Year

Language of tuition: English

Credits: 70

Module content:

The diagnosis, treatment and control of diseases of the dog and cat. Integration of aspects of clinical veterinary science, including components of contagious and parasitic diseases; clinical diagnostics; clinical pathology; diagnostic imaging, therapeutics; medicine; surgery; reproduction; pathology and behavioural anomalies.

Departments involved: Companion Animal Clinical Studies, Paraclinical Sciences, Production Animal Studies and Veterinary Tropical Diseases.

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.

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.

TOX 400 Toxicology 400

Academic organisation: Paraclinical Sciences

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 11

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 or prevention.

A plant collection has to be submitted.

TPR 120 Theatre practice 120

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 2: 3 lpw 3 ppw

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.

VAP 300 Veterinary anatomy and physiology 300

Academic organisation: Anatomy and Physiology

Prerequisite: Only students selected for BSc (Veterinary Biology) III.

Contact time: 10 lpw 2 ppw

Period of presentation: Year

Language of tuition: English

Credits: 72

Module content:

Veterinary anatomy, physiology, histology and embryology of the skin, locomotor system, nervous system, cardiovascular system, respiratory system, digestive system and urogenital system of domestic animals.

The dog is used as model for anatomy. Topographical anatomy of the dog.

VBE 601 Veterinary business management and ethics 601

Academic organisation: Veterinary Tropical Diseases

Contact time: Semester 1: 3 lpw Semester 2: 2 lpw

Period of presentation: Year

Language of tuition: English

Credits: 9

Module content:

The module is divided into three areas of study, namely Veterinary law and ethics, Regulatory veterinary services and Practice management.

The first section deals with statutes involving the veterinary profession, including labour law and the veterinarian's role in ethical decisionmaking with regards to their patients and animals used in research.

The second section deals with control measures to prevent the spread of nationally and internationally recognised notifiable diseases and the certification of animals and animal products.

The third section deals with business principles applicable to private veterinary practice, including general practice management, financial management and marketing.

VCA 400 Veterinary comparative anatomy 400

Academic organisation: Anatomy and Physiology

Contact time: Block 1: 8 lpw Block 2: 6 lpw

Period of presentation: Year

Language of tuition: English

Credits: 26

Module content:

Comparative osteology, myology, arthrology, neurology, angiology, splanchnology and topographical anatomy of ruminants, the horse and pig; applied anatomy. Basic anatomy of the cat, poultry and fish.

VET 110 Veterinary ethology 110

Academic organisation: Companion Animal Clinical Studies

Contact time: Block 1: 8 lpw 3 ppw

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.

VPH 400 General pharmacology 400

Academic organisation: Paraclinical Sciences

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 11

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 used in general veterinary practice with regard to their origin, classification, representative disposition, dosage forms, general indication, safety and side effects.

VPL 120 Veterinary professional life

Academic organisation: Veterinary Science Dean's Office

Period of presentation: Semester 2

Language of tuition: English

Credits: 3

Module content:

Veterinary professional exposure and competency development.

Exposure to the diversities of opportunities and career paths in the veterinary professions. Development of competencies to enable veterinarians to represent a rounded professional, capable to deal with the diverse challenges in professional and everyday life.

VTP 400 Introductory veterinary microbiology and parasitology 400

Academic organisation: Veterinary Tropical Diseases

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 11

Module content:

Introduction to and terminology of helminths and ectoparasites of importance to domestic animals in South Africa.

General concepts of the taxonomy, identification, pathogenesis, clinical signs, epidemiology and control of these parasites. Taxonomy and biophysical properties of protozoa. Basic concepts of infectious diseases relating to the application and interpretation of laboratory diagnostic tests, and their control and eradication.

WOC 610 Wildlife, ostrich and crocodile health 610

Academic organisation: Production Animal Studies

Contact time: 3 lpw

Period of presentation: Semester 1

Language of tuition: English

Credits: 6

Module content:

A one-semester (elective) module designed to give veterinary students a working knowledge of the most important infectious and parasitic diseases of wildlife and the principles of good management and care of both free-living and farmed populations of wild mammals, ostriches and crocodiles. Offered by different departments.

POSTGRADUATE

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 704 Anatomy 704

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 cattle. 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: 24

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.

ANG 779 Anatomy 779

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

An in-depth comparative study of the anatomy of the pelvis and surrounding areas, histology of the reproductive system and the embryological development of the reproductive system.

ANV 771 Anaesthesiology 771

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 16

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 772 Anaesthesiology 772

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Advanced theoretical training on a species-orientated basis, including domestic animals, production animals (ruminants and pigs), 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.

BKG 781 Dairy cattle herd health 781

Academic organisation: Production Animal Studies

Period of presentation: Semester 1

Language of tuition: English

Credits: 24

Module content:

A semester module based on dairy farm visits, discussions, seminars and case studies. The module will enable students to integrate and apply knowledge so that health and production problems can be identified and solved on a herd basis, while health status and production effectiveness can be improved from a holistic and cost-effective viewpoint.

BKG 782 Beef herd health 782

Academic organisation: Production Animal Studies

Period of presentation: Semester 1

Language of tuition: English

Credits: 16

Module content:

A semester module based on beef cattle farm visits, discussions, seminars and case studies.

The module will enable students to integrate and apply knowledge so that health and production problems can be identified and solved on a herd basis, while health status and production effectiveness can be improved within a wide spectrum of beef cattle farming systems and feedlots.

BOM 701 Bovine medicine: Gastrointestinal and production diseases 701

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Advanced theoretical study in cattle medicine specifically applicable to conditions of the gastrointestinal tract, liver and production diseases.

BOM 702 Bovine medicine: Diseases of the liver, cardiovascular, respiratory, and urinary system 702

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Advanced theoretical study in cattle medicine specifically applicable to conditions of the liver, cardiovascular, respiratory and urinary system.

BOM 703 Bovine medicine: Neurology, musculoskeletal system, skin and appendages 703

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Advanced theoretical study in cattle medicine specifically applicable to conditions of the skin, nervous system and musculo-skeletal system, skin and appendages.

CHV 703 Surgery: Small animals 703

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 28

Module content:

Advanced theoretical study of small animal surgery.

CHV 704 Surgery: Horses 704

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

Advanced theoretical study of equine surgery.

CHV 705 Surgery 705

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 12

Module content:

Applicable aspects of general surgery and biomaterial science, anaesthesiology and diagnostic imaging.

CHV 706 Surgery: Reproduction 706

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 20

Module content:

Aspects of general and abdominal surgery, anaesthesiology and diagnostic imaging applicable to advanced studies in reproduction (all species).

DIM 781 Radiology: Dogs and cats 781

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

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: 16

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

Period of presentation: Year

Language of tuition: English

Credits: 20

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

Period of presentation: Year

Language of tuition: English

Credits: 16

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 785 Radiology: Ruminants 785

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 8

Module content:

Advanced study of radiology of ruminants.

The module extends over a period of Wednesday mornings for about 4 months. Approximately 4 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 in order to confirm a diagnosis.

The module is normally only presented on request.

DIM 786 Non-radiological diagnostic imaging of ruminants 786

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Advanced study in non-radiological diagnostic imaging of ruminants.

The module extends over a period of about 9 months. Approximately 13 lectures/group discussions/practicals are presented fortnightly on Wednesday mornings.

Approximately 85% is allocated to diagnostic ultrasound; 5% 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 on request.

FAK 706 Clinical pharmacology: Ruminants 706

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

Advanced clinical pharmacology studies in small stock and cattle including: special pharmaceutical, pharmacokinetic, pharmacodynamic and pharmacotherapeutic features related to ruminants; species-specific therapeutic objectives and rational pharmacotherapy; human and environmental hazards and risk-assessment of drugs used in food-producing animals; management and production tools; therapeutic control measures; specialised patient pharmacotherapy and adverse drug effects.

FAK 707 Clinical pharmacology: Horses 707

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

Advanced clinical pharmacological studies in horses: including special pharmacokinetic, pharmacodynamic and pharmacotherapeutic features related to equids;

species-specific therapeutic objectives and rational pharmacotherapy; management tools; therapeutic control; performance enhancement and doping; specialised patient pharmacotherapy; and adverse drug effects.

FAK 708 Drugs used in wildlife and exotic species 708

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

Wildlife clinical pharmacology: Fundamentals of pharmacology in wildlife, theoretical and practical training of drugs used in the immobilisation, capture, handling and translocation of wild animals, general pharmacotherapies applied in wildlife; chemical reproductive manipulation of wildlife and drugs used in some unusual species.

FAK 711 Clinical ophthalmic pharmacology and therapeutics 711

Academic organisation: Paraclinical Sciences

Contact time: 3 lpw

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

Advanced clinical pharmacological studies required for the rational use of veterinary medicinal products in the treatment and management of ocular conditions.

Principles of rational use of veterinary medicinal products, applied pharmaceuticals, pharmacokinetics, pharmacodynamics, pharmacotherapeutics, specific medicinal products, chemotherapeutics and adverse reaction of drugs used in ocular conditions.

FAK 775 Clinical pharmacology: Dogs and cats 775

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

Advanced clinical pharmacological studies in dogs and cats including: special pharmaceutical, pharmacokinetic, pharmacodynamic and pharmacotherapy features related to dogs and cats; species-specific therapeutic objectives and rational pharmacotherapy; specialised drug therapy; specialised patient pharmacotherapy; and adverse drug effects.

FSL 713 Physiology 713

Academic organisation: Anatomy and Physiology

Prerequisite: Prospective students must pass an entrance test during November of the preceding year to be admitted to the module.

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Continuation of tuition at an advanced level, with the emphasis on applied and pathophysiology.

Admission to the module must be discussed with the head of department during June of the preceding year.

FSL 787 Physiology 787

Academic organisation: Anatomy and Physiology (

Period of presentation: Year

Language of tuition: English **Credits:** 20
Module content:
Pathophysiology of clinical syndromes (capita selecta).

FSL 788 Physiology 788
Academic organisation: Anatomy and Physiology
Contact time: 3 lpw
Period of presentation: Year
Language of tuition: English **Credits:** 20
Module content:
Applied 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:** 32
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:** 36
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:** 36
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:** 28
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.

GSK 708 Reproductive physiology of animals 708
Academic organisation: Production Animal Studies
Period of presentation: Year
Language of tuition: English **Credits:** 24

Module content:

Students will gain advanced theoretical knowledge of general reproductive endocrinology and physiology of animals.

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

GSK 709 Reproductive biology: Cattle 709

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

Includes the physiology and endocrinology of puberty in the heifer, the oestrous cycle, pregnancy, parturition, the puerperium, as well as that of the foetus and the neonate. Also included are the physiology and endocrinology of the bull, more specifically that of puberty, spermatogenesis, the scrotum, the accessory sex glands, libido, erection, coitus, sperm and semen.

Also included are certain aspects of reproductive biotechnology, namely the biotechnical aspects of collection, examination and freezing of semen and embryos, embryo transfer and in vitro fertilisation.

GSK 710 Clinical reproduction: Cattle 710

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 32

Module content:

Causes, pathogenesis, control, treatment and prevention of diseases and malfunctions of reproduction in cattle, as well as the evaluation of males and females for breeding soundness.

Also included are certain aspects of assisted reproduction and reproductive biotechnology, such as control of the oestrous cycle and parturition. A veterinary perspective (indications, limitations, current and future possibilities, and methods) on those reproductive biotechnologies included in GSK 709.

GSK 711 Reproductive biology: Small stock 711

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Includes the physiology and endocrinology of puberty in the ewe or doe, as well as that of seasonality of reproduction, the oestrous cycle, pregnancy, parturition, the puerperium, and that of the foetus and the neonate. Physiology and endocrinology of the ram, more specifically that of puberty, spermatogenesis, the scrotum, the accessory sex glands, libido, erection, coitus, sperm and semen.

Also included are certain aspects of reproductive biotechnology, namely the biotechnical aspects of collection, examination and freezing of semen and embryos.

GSK 712 Clinical reproduction: Small stock 712

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Causes, pathogenesis, control, treatment and prevention of diseases and malfunctions of reproduction in sheep and goats, as well as the evaluation of males and females for breeding soundness.

Also included are certain aspects of assisted reproduction and reproductive biotechnology, such as control of the oestrous cycle and parturition. A veterinary perspective (indications, limitations, current and future possibilities, and methods) on those reproductive biotechnologies included in GSK 711.

GSK 713 Reproductive biology: Horses 713

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Includes the physiology and endocrinology of puberty in the mare, as well as that of seasonality of reproduction, the oestrous cycle, pregnancy, parturition, the puerperium, and that of the foetus and the neonate.

Also included are the physiology and endocrinology of the stallion, more specifically that of puberty, spermatogenesis, the scrotum, the accessory sex glands, libido, erection, coitus, sperm and semen.

Also included are certain aspects of reproductive biotechnology, namely the biotechnical aspects of collection, examination and freezing of semen and embryos and embryo transfer.

GSK 714 Clinical reproduction: Horses 714

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Causes, pathogenesis, control, treatment and prevention of diseases and malfunctions of reproduction in horses, as well as the evaluation of males and females for breeding soundness.

Also included are certain aspects of assisted reproduction and reproductive biotechnology, such as control of the oestrous cycle and parturition. A veterinary perspective (indications, limitations, current and future possibilities, and methods) on those reproductive biotechnologies included in GSK 713.

GSK 715 Reproductive biology: Dogs and cats 715

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Includes the physiology and endocrinology of puberty in the bitch and queen, the seasonality of reproduction in the queen, the oestrous cycle, pregnancy, parturition, the puerperium, and that of the foetus and the neonate.

Also included are the physiology and endocrinology of the dog and tomcat, more specifically that of puberty, spermatogenesis, the scrotum, the accessory sex glands, libido, erection, coitus, sperm and semen.

Also included are certain aspects of reproductive biotechnology, namely the biotechnical aspects of collection, examination and freezing of semen.

GSK 716 Clinical reproduction: Dogs and cats 716

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Causes, pathogenesis, control, treatment and prevention of diseases and malfunctions of reproduction in dogs and cats, as well as the evaluation of males and females for breeding soundness.

Also included are certain aspects of assisted reproduction and reproductive biotechnology, such as control of the oestrous cycle and parturition. A veterinary perspective (indications, limitations, current and future possibilities, and methods) on those reproductive biotechnologies included in GSK 715, as well as embryo transfer and in vitro fertilisation.

GSK 717 Reproductive biology: Wildlife 717

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Physiology and endocrinology of reproduction and reproductive patterns of wildlife, the monitoring of their reproduction, the development of breeding programmes for them and contraception.

Also included is a theoretical overview of the threats to wildlife reproduction posed by environmental pollutants, diseases and drugs.

GSK 718 Clinical reproduction: Wildlife 718

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Causes, pathogenesis, diagnosis, treatment, control, and prevention of diseases and malfunctions of reproduction in wildlife, as well as the evaluation of males and females for breeding soundness.

Also included are certain aspects of assisted reproduction, reproductive biotechnology and contraception.

HIS 700 Histology 700

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 20

Module content:

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

Consult the head of department for details of modules for the master's degree programme.

KKS 780 Small stock herd health 780

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

A year module based on farm visits, discussions, seminars and case studies. 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.

KPA 701 Clinical pathology 701

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

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: 20

Module content:

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

LAS 700 Laboratory animal science 700

Academic organisation: Paraclinical Sciences

Prerequisite: VRM 811

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

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

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

OFM 700 Ophthalmology 700

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

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.

PAM 700 Production animal management 700

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Six seminars will be required to the standard and format determined by the Department.

The module extends over one year. No specific practical projects are required, but projects may constitute part of the preparation for the seminars. The species concerned are dairy cattle, beef cattle, small stock and pigs. The module content includes the study of animal genetics, nutrition, management, housing, keeping of records, hygiene, welfare and behaviour, with special emphasis on nutrition. An oral examination takes place at the conclusion of the module.

PAT 700 Pathology 700

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 36

Module content:

General pathology for students who plan to take pathology as special field of study for MMedVet.

PAT 702 Pathology: Dogs and cats 702

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Diagnostic pathology of the diseases of dogs and cats.

PAT 703 Pathology: Pigs 703

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Diagnostic pathology of the diseases of pigs.

PAT 704 Pathology: Horses 704

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Diagnostic pathology of the diseases of horses.

PAT 705 Pathology: Ruminants 705

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Diagnostic pathology of the diseases of ruminants.

PAT 706 Pathology: Wildlife 706

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 28

Module content:

Diagnostic pathology of the diseases of wildlife.

PAT 707 Necropsy technique and interpretation 707

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 708 Ophthalmological pathology 708

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 709 Reproductive pathology 709

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

General and specific diseases of the reproductive system of domestic animals.

PAT 771 Mechanisms of disease 771

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Mechanisms of disease (for Medicine students).

PHP 701 Porcine health and production: Housing 701

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Advanced theoretical study in pig housing, both outdoor and intensive, specifically applicable to conditions of Southern Africa.

PHP 702 Porcine health and production: Nutrition 702

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Advanced theoretical study in pig nutrition, specifically applicable to conditions of Southern Africa.

PHP 771 Poultry health and production 771

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 (honours level).

PVV 700 Poultry nutrition 700

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: Both Afr and Eng

Credits: 20

Module content:

Commercial poultry nutrition.

TOK 701 Toxicology: Basic and clinical veterinary toxicology 701

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 20

Module content:

Advanced studies in toxicological principles to enable students to develop proficiency in routine toxicological investigations, treatment, advice and diagnostic procedures.

TOK 702 Toxicology: Laboratory toxicity testing 702

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 8

Module content:

Advanced studies in laboratory toxicity testing and methodology.

TOK 703 Toxicology: Phyto- and mycotoxins 703

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Advanced training in the most important and well-known plant poisoning syndromes and mycotoxicoses as well as an introduction to newer and less important poisonous plants and mycotoxicoses.

TOK 704 Toxicology: Organic and inorganic poisons 704

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 20

Module content:

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

An introduction to less common organic and inorganic poisonings and other poisonous/venomous species of veterinary importance in Southern Africa.

VPH 700 Veterinary public health fundamentals 700

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 30

Module content:

General field of study for students wishing to take veterinary public health at honours level or as an ancillary.

A well-rounded and systematically expanded knowledge base, an informed understanding and the effective selection and application of appropriate skills and resources in the field of veterinary public health; together with a more detailed knowledge and application of veterinary meat and milk hygiene, poultry hygiene, food safety, veterinary environmental health, disaster management and the associated risk analyses, certification for export and relevant legislation.

VRM 782 Veterinary research methodology 782

Academic organisation: Paraclinical Sciences

Prerequisite: VRM 811

Period of presentation: Semester 1

Language of tuition: English

Credits: 8

Module content:

An advanced module in research methodology for veterinarians involved in laboratory animals and/or laboratory work. The module covers nutrition, housing, handling and sample-taking of laboratory animals, administrative tasks and record-keeping, laboratory safety procedures and waste disposal, quality control and basic laboratory techniques. A large component of this module entails laboratory practicals.

ANV 800 Anaesthesiology 800

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 451

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: 150

ASR 811 Applied serology 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Year

Language of tuition: English

Credits: 30

Module content:

A theoretical and practical study of serology and the production of diagnostic reagents.

AVB 817 Applied veterinary bacteriology and mycology 817

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 35

Module content:

Introduction to bacteriology and mycology: anaerobic bacteria, aerobic and facultative anaerobes, fungi, *Mycoplasma* species, milk hygiene and udder health

Basic laboratory techniques in bacteriology and mycology that include culturing bacteria and fungi from specimens and grouping bacteria and fungi for further identification. This includes bacterial counting methods, *in vitro* antimicrobial susceptibility tests and the culture and identification of the following: anaerobic bacteria of veterinary significance, aerobic and facultative anaerobic bacteria to genus, species, and biotype of serotype, both filamentous fungi and yeasts (included the microscopic identification of fungi in specimens), and minimum inhibitory concentration tests to determine antifungal susceptibility; mycoplasmas from various animal tissue specimens; and applied theory and practice of the laboratory methods used in udder health and milk hygiene.

AVE 811 Applied veterinary ectoparasitology and protozoology 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 25

Module content:

A theoretical and practical study of techniques to diagnose free-living and parasitic stages of the economically important arthropod and protozoal parasites of domestic and wild animals (excluding tsetse flies and trypanosomes, and those ticks and tick-borne protozoa and rickettsias that are included in the "Ticks" and "Tick-borne diseases" modules).

AVH 811 Applied veterinary helminthology 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 25

Module content:

A study of the diagnostic techniques of helminth parasites in live and dead animals, their fixation, preservation and identification in livestock, companion animals and wildlife, and their population dynamics, ecology and parasite-host interactions.

AVV 811 Applied virology: General theory 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 10

Module content:

A theoretical study of veterinary virology with particular emphasis on the characteristics of viruses, and their morphology, replication, and identification in the laboratory.

AVV 815 Applied virology: Virus identification 815

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 20

Module content:

Theoretical and practical study of the use of cell cultures, embryonated eggs and laboratory animals for the isolation and identification of viruses.

BKG 800 Cattle herd health 800

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 396

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, while health status and production effectiveness of herds can be raised from a holistic and cost-effective viewpoint within a wide spectrum of dairy and beef cattle farming systems and feedlots.

BKG 890 Mini-dissertation: Cattle herd health 890

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 132

CAH 811 Community-based animal health: Building communities 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 7

Module content:

A study of the importance of the social and ecological aspects of agriculture during the development of community-based animal health and development programmes.

CAH 812 Community-based animal health: Veterinary communication and extension 812

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 6

Module content:

Knowledge and skills in veterinary communication and extension required to facilitate group and community participation in surveillance, monitoring and control of animal diseases.

CAH 813 Community-based animal health: Veterinary service delivery 813

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 7

Module content:

Development of an effective and cost efficient community-based veterinary service delivery system which is of benefit to animal owners, government and other stakeholders.

CHV 803 Surgery 803

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 562

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

Language of tuition: English

Credits: 532

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: 188

CHV 894 Mini-dissertation: Equine surgery 894

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 178

DIM 870 Diagnostic imaging 870

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 325

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: 109

EIP 811 Ectoparasitic infestations and protozoal infections: Companion animals 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 10

Module content:

A theoretical study of the epidemiology, clinical signs, diagnosis, control and prevention of selected ectoparasitic infestations and protozoal infections in companion animals (dogs, cats, and equids) in the Afrotropical region.

EIP 813 Ectoparasitic infestations and protozoal infections: Ruminants 813

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 10

Module content:

A theoretical study of the epidemiology, clinical signs, diagnosis, control and prevention of selected ectoparasitic infestations and protozoal infections in domestic ruminants in the Afrotropical region.

EIP 814 Ectoparasitic infestations and protozoal infections: Wildlife 814

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 5

Module content:

A theoretical study of the epidemiology, clinical signs, diagnosis, control and prevention of selected ectoparasitic infestations and protozoal infections in wildlife in the Afrotropical region.

EPL 851 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 other per week 1 spw

Period of presentation: Year

Language of tuition: English

Credits: 16

Module content:

Multimode learning module.

Basic epidemiology for veterinarians.

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 in various veterinary disciplines can be built. The module is presented as a multimode learning module, which will enable students to complete it in their own time, at their own pace and place. The module covers aspects of population medicine, disease outbreak investigation, clinical epidemiology, experimental studies, observational studies, surveys, analytical tools and serological tests.

EPL 852 Veterinary epidemiology 852

Academic organisation: Production Animal Studies

Prerequisite: BVSc or equivalent qualification and Grade 12 Mathematics.

Contact time: 1 spw

Period of presentation: Year

Language of tuition: English

Credits: 12

Module content:

Multimode learning module.

Applied statistical methods for veterinarians. This module provides students with a foundation in statistical methods commonly used by postgraduate students in various disciplines, research veterinarians, herd health practitioners and veterinary specialists, including wild life, poultry, medicine and VPH. The module is designed as a multimode learning module which will enable students to complete it in their own time, at their own pace and place. The module covers statistical building blocks, confidence intervals, hypothesis testing, chi-square procedures, regression and correlation, paired and pooled t-tests, analysis of variance, parametric and non-parametric tests.

EPL 853 Veterinary epidemiology 853

Academic organisation: Production Animal Studies

Prerequisite: Prerequisite: EPL 851 and EPL 852

Contact time: 1 spw

Period of presentation: Year

Language of tuition: English

Credits: 18

Module content:

Multimode learning module.

Advanced statistical techniques for veterinarians)

This module will provide the veterinarian with an introduction to certain advanced statistical methods applicable to veterinary science, including data adjustment techniques, multiple linear regression, logistic regression and survival analysis will provide the basis for further studies and research involving these techniques.

EPL 854 Veterinary epidemiology 854

Academic organisation: Production Animal Studies

Prerequisite: EPL 851, Grade 12 Mathematics and a working knowledge of Excel or a similar spreadsheet programme.

It is a prerequisite for a master's degree in veterinary epidemiology.

Contact time: 2 other per week 1 lpw

Period of presentation: Year

Language of tuition: English

Credits: 20

Module content:

Multimode learning module.

Advanced epidemiology, economics and risk assessment for veterinarians. This module is designed to allow veterinarians to obtain advanced knowledge in disease modelling techniques, applied animal health economics and risk analysis.

FAK 800 Pharmacology 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year

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 pharmaceuticals 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

Prerequisite: Mainly aimed at students who envisage following a specialisation for the MMedVet (Pharm) degree.

Period of presentation: Year

Language of tuition: English

Credits: 30

Module content:

Clinical pharmacological studies of all domestic animal species: Pharmaceutical, pharmacokinetic, pharmacodynamic and pharmacotherapeutic considerations relevant to each species.

Species-specific therapeutic objectives and rational therapy.

Specialised drug therapy.

Specialised patient pharmacotherapy.

Drug use and control.

Handling of adverse drug reactions.

FAK 895 Mini-dissertation: Pharmacology 895

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 126

GEN 801 Bovine medicine 801

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 341

Module content:

Advanced study with regard to the organ, metabolic and deficiency diseases of bovinds. Pathophysiology, diagnostic and treatment methods are emphasised.

GEN 802 Equine medicine 802

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 356

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

Language of tuition: English

Credits: 396

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: 120

GEN 893 Mini-dissertation: Small animal medicine 893

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 132

GSK 800 Reproduction 800

Academic organisation: Production Animal Studies

Prerequisite: Modules GSK 708 to GSK 716 are compulsory components of GSK 800.

Period of presentation: Year

Language of tuition: English

Credits: 366

Module content:

This module offers broad-based, in-depth theoretical and practical training on animal reproduction and is a requirement for the MMedVet (Reproduction) degree.

Reproduction, as taught during the undergraduate veterinary curriculum, serves as basis for advanced training in obstetrics, gynaecology, andrology and assisted reproduction of animals.

GSK 890 Mini-dissertation: Reproduction 890

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 120

HEI 811 Helminth infections: Companion animals 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 5

Module content:

A study of the epidemiology, clinical signs, pathology, diagnosis, socio-economic effects and control/eradication of the economically important helminth infections of companion animals (dogs and cats).

HEI 812 Helminth infections: Equids 812

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 5

Module content:

A study of the epidemiology, clinical signs, pathology, diagnosis, socio-economic effects and control/eradication of the economically important helminth infections of domestic equids.

HEI 813 Helminth infections: Ruminants 813

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 10

Module content:

A study of the epidemiology, clinical signs, pathology, diagnosis, socio-economic effects and control/eradication of the economically important helminth infections of domestic ruminants.

HEI 814 Helminth infections: Wildlife 814

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 10

Module content:

A study of the epidemiology, clinical signs, pathology, diagnosis and control/eradication of helminth infections of the more common wildlife species.

KDK 800 Clinical laboratory diagnostics 800

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

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: 24

KKS 800 Small stock herd health 800

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 360

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: 120

LPK 811 Laboratory Practice 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 20

Module content:

A study of veterinary diagnostic laboratory management. The emphasis is on the managerial skills and knowledge that the head of a laboratory will require to manage such a laboratory in terms of its daily activities, quality assurance and safety of personnel.

OFM 800 Ophthalmology 800

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

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

PAT 800 Pathology 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 272

Module content:

Advanced diagnostic pathology of production animals, domestic animals, wildlife, laboratory animals, fish and poultry.

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

Language of tuition: English

Credits: 24

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: 127

PHP 800 Poultry health and production 800

Academic organisation: Production Animal Studies

Prerequisite: This module is a prerequisite for the MMedVet(Altii) degree.

Period of presentation: Year

Language of tuition: English

Credits: 418

Module content:

Advanced training in poultry health and production. (Master's level)

PVT 890 Mini-dissertation: Poultry diseases 890

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: Both Afr and Eng

Credits: 24

SID 811 Selected infectious diseases: Animal health management 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 25

Module content:

A theoretical study of general principles of animal health management including control/eradication of important infectious and parasitic diseases of livestock with special reference to sub-Saharan Africa.

SID 812 Selected infectious diseases: Cattle 812

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 25

Module content:

A theoretical study of the epidemiology, clinical signs, diagnosis and control/eradication of economically important infectious diseases of cattle particularly in Africa with special reference to transboundary diseases and diseases of importance at the wildlife/domestic animal interface.

SID 813 Selected infectious diseases: Companion animals 813

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 15

Module content:

A theoretical study of the epidemiology, clinical signs diagnosis and control of important infectious diseases of companion animals (dogs and cats).

SID 814 Selected infectious diseases: Equids

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 15

Module content:

A theoretical study of the epidemiology, clinical signs, diagnosis and control/eradication of economically important infectious diseases of equids.

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.

SID 816 Selected infectious diseases: Small stock 816

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 25

Module content:

A theoretical study of the epidemiology, clinical signs, diagnosis and control/eradication of important infectious diseases of small stock with special reference to sub-Saharan Africa.

SID 817 Selected infectious diseases: Wildlife 817

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 20

Module content:

A theoretical study of the important infectious diseases of wildlife particularly at the interface with domestic animals in sub-Saharan Africa.

TBD 811 Tick-borne diseases: Companion animals 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 5

Module content:

A theoretical study of the epidemiology, clinical signs, diagnosis, control and prevention of the tick-borne protozoal and rickettsial diseases of dogs, cats and equids in the Afrotropical region.

TBD 813 Tick-borne diseases: Ruminants 813

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 15

Module content:

A theoretical study of the epidemiology, clinical signs, diagnosis, control and prevention of the tick-borne protozoal and rickettsial diseases of cattle, sheep and goats in the Afrotropical region.

TBD 814 Tick-borne diseases: Wildlife 814

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 1

Language of tuition: English

Credits: 5

Module content:

A theoretical study of the epidemiology, clinical signs, diagnosis, control and prevention of the tick-borne protozoal and rickettsial diseases of wildlife in the Afrotropical region.

TCK 811 Ticks 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 30

Module content:

A theoretical and practical study of the identification, biology, ecology, life cycles, surveillance, sampling methods and control of the most important ticks of sub-Saharan Africa.

TOK 800 Toxicology 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 270

Module content:

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

TOK 890 Mini-dissertation: Toxicology 890

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 90

TSE 811 Tsetse and trypanosomosis 811

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 45

Module content:

A theoretical and practical study of the identification, life cycle, biology, ecology, sampling methods, surveillance and control of tsetse flies and of the epidemiology, clinical and pathological aspects, diagnosis and control of animal trypanosomosis.

VET 800 Veterinary ethology 800

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

Module content:

Under revision and will not be offered during 2010

VET 890 Mini-dissertation: Veterinary ethology 890

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 24

VIP 800 Veterinary industrial pharmacology 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 64

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 Mini-dissertation: 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

Period of presentation: Year

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 Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 141

VMB 816 Molecular biology 816

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Semester 2

Language of tuition: English

Credits: 40

Module content:

Theoretical and practical study in the principles and applications of PCR; DNA sequencing techniques; blotting techniques and protein expression and analysis.

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 production, practical application of HACCP relating to the specific activities, prevention and control of chemical residues in milk, 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.

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.

VTS 890 Mini-dissertation 890

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Year

Language of tuition: English

Credits: 80

VVD 800 Veterinary public health 800

Academic organisation: Paraclinical Sciences

Period of presentation: Year

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

VVE 801 Dissertation: Veterinary tropical diseases 801

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Year

Language of tuition: English

Credits: 240

VVE 802 Dissertation: Anatomy and physiology 802

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 240

VVE 803 Dissertation: Companion animal clinical studies 803

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 240

VVE 804 Dissertation: Paraclinical sciences 804

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 240

VVE 805 Dissertation: Production animal studies 805

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 240

WLS 800 Veterinary wildlife studies 800

Academic organisation: Production Animal Studies

Contact time: 1 spw 5 ppw 1 dpw

Period of presentation: Year

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 800 Wildlife diseases 800

Academic organisation: Production Animal Studies

Contact time: 2 ppw 2 dpw 5 spw 2 lpw

Period of presentation: Year

Language of tuition: English

Credits: 24

WSK 890 Mini-dissertation: Wildlife diseases 890

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 140

VWE 901 Thesis: Veterinary tropical diseases 901

Academic organisation: Veterinary Tropical Diseases

Period of presentation: Year

Language of tuition: English

Credits: 480

VWE 902 Thesis: Anatomy and physiology 902

Academic organisation: Anatomy and Physiology

Period of presentation: Year

Language of tuition: English

Credits: 480

VWE 903 Thesis: Companion animal clinical sciences 903

Academic organisation: Companion Animal Clinical Studies

Period of presentation: Year

Language of tuition: English

Credits: 480

VWE 904 Thesis: Paraclinical sciences 904

Academic organisation: Paraclinical Sciences

Period of presentation: Year

Language of tuition: English

Credits: 480

VWE 905 Thesis: Production animal studies 905

Academic organisation: Production Animal Studies

Period of presentation: Year

Language of tuition: English

Credits: 480

Note:

Modules not listed in this publication, can be accessed at: <https://www.up.ac.za>