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# University of Pretoria Yearbook 2017

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## Faculty of Veterinary Science

### Welcome to the Faculty of Veterinary Science

The Faculty of Veterinary Science of the University of Pretoria is situated on the Onderstepoort campus of the University some 20 km north west of the Hatfield main campus and some 15 km due north of the city centre of Pretoria (Tshwane). It aims to be an internationally accredited seat of veterinary excellence, strives to be globally competitive, regionally pre-eminent and locally relevant whilst providing an effective veterinary interface to Africa. The Faculty has a proud tradition in veterinary and para-veterinary education, research and service-rendering which dates back to the early 1920s.

### Faculty regulations and information

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

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

**Also consult General Rules and Information on the Yearbook website for additional information.**

### BVSc degree programme

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

### University Diploma in Veterinary Nursing

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

### Language of tuition

In conducting its business, the University uses two official languages, namely English and Afrikaans. However, in formal education the language of tuition in the faculty of Veterinary Science is only in English. In respect of administrative and other services, a student has the right to choose whether the University should communicate with him or her in English or Afrikaans. Where the University has the capacity, Sepedi is used as an additional language of communication.

### Academic Orientation Programme

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

A similar programme is presented annually for all new diploma students on the Onderstepoort campus. Attendance is compulsory. Parents of diploma students may attend the first day of the programme, details of

which will be provided in the documentation sent to all successful candidates at the end of the selection process.

### **Hospital Orientation Programme**

The programme is presented annually for BVSc V students. It takes place during the week before the clinic rotation programme starts in July. Attendance is compulsory.

### **Prescribed books and instruments**

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

### **Dress code**

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

### **Excursions**

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

### **Vaccinations**

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

### **Leave of absence**

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

### **Academic literacy**

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

### **Examinations 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 Examinations and related matters in the Faculty of Veterinary Science as well as individual study guides.

### **Subminima in examinations**

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

### **Weighting of modules**

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

### **Examinations (Reg G.12)**

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

### **Ancillary examinations (Reg G.12.3)**

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

### **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.

### **Perusal and re-marking of examination papers scripts (also consult Reg G.14)**

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

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

### **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.

### **Statutory requirements**

Registration requirements contained in the relevant programmes.

### **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 also referred to the curriculum and other information of each programme.

## Undergrad Diploma/Certificate

### University Diploma Veterinary Nursing (08120002)

**Duration of study** 2 years

#### Programme information

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

Check Faculty website for notification in this regard.

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

#### Admission requirements

- All study programmes in this Faculty include selection procedures which are based on academic merit the result of the National Benchmark Test (NBT) and a value-added form. Applicants who indicate BVSc or DipVetNurs as their first choice will be given preference. In order to retain provisional admission candidates should still comply with the minimum subject and Admission Point Score (APS) requirements based on their National Senior Certificate (NSC) results.
- The following candidates will be considered for admission: a candidate who is in possession of a certificate that is deemed by the University to be equivalent to the required Grade 12 certificate with university endorsement ; a candidate who is a graduate from another tertiary institution or has been granted the status of a graduate of such a institution;and a candidate who is a graduate of another faculty of the University of Pretoria.
- Life Orientation is excluded when calculating the APS.

Minimum requirements for 2017															
Achievement level															
English				Mathematics				Life Sciences				Physical Science			
NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level
4	3	D	D	4	3	D	D	4	3	D	D	4	3	D	D

APS

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NBT compulsory as part of the selection process.

A valid NSC with university admission is required for all school-leavers who do not have tertiary experience. The APS is calculated from the achievement levels obtained in the six 20-credit subjects of the NSC. Minimum admission requirements appear above. Additional requirements include the NBT and a completed value-added form.

#### Additional requirements

Students are admitted annually after selection according to the approved procedure.

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.

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.

#### Examinations and pass requirements

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.

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. The theoretical part (i.e. written and/or oral) and the practical part (where applicable) of the examinations contribute an equal amount (i.e. 50:50) in the calculation of the final mark.

If the examination includes a practical as well as a theoretical part, a sub-minimum of 40% is required in each section.

An examination mark of 50% is required to pass a supplementary examination. The semester or year mark is not taken into calculation.

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.

A student must pass all the modules of the first year of study in order to be promoted to the second year of study. A single further examination will, however, be allowed for students who have only one of the following modules outstanding at the end of the academic year, provided the final mark is at least 40%:

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

### **Supplementary examinations in the first year**

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

### **Supplementary examinations in the final year**

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.

### **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.

### **Repetition of the final year of study**

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

otherwise.

### **General pass requirements**

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

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.

### **Promotion to next study year**

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

### **Practical/clinical/internship information**

#### **Clinical experience (including practical work)**

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

In state control of stock diseases and administration: experience at an approved institution as approved by the Dean.

Practical and clinical experience at the Faculty and at approved private practices as well as other institutions as approved by the Dean.

#### **Clinical skills training in the first year**

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.

#### **Clinical skills training in the final year**

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.

### **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.



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## Curriculum: Year 1

Minimum credits: 129

### Fundamental modules

Academic orientation 108 (UPO 108) - Credits: 0.00

### Core modules

General nursing 111 (AVP 111) - Credits: 14.00

Reproductive nursing 120 (GSV 120) - Credits: 5.00

Laboratory technique 120 (LTG 120) - Credits: 11.00

Medical nursing 120 (MVP 120) - Credits: 6.00

Parasitology 120 (PAR 120) - Credits: 8.00

Theatre practice 120 (TPR 120) - Credits: 6.00

Veterinary ethology 110 (VET 110) - Credits: 16.00

Anatomy 104 (ANG 104) - Credits: 24.00

Pharmacology 120 (FAK 120) - Credits: 7.00

Microbiology 111 (MBI 111) - Credits: 10.00

Physiology 104 (FSL 104) - Credits: 22.00

## Curriculum: Final year

Minimum credits: 163

### Core modules

Surgical nursing 200 (CVP 200) - Credits: 38.00

Reproductive nursing 200 (GSV 200) - Credits: 11.00

Medical nursing 200 (MVP 200) - Credits: 74.00

Anaesthesiology 200 (NAR 200) - Credits: 16.00

Theatre practice 200 (TPR 200) - Credits: 12.00

Radiography 200 (RAV 200) - Credits: 12.00

## Undergraduate Degree

### BVSc (08130005)

**Duration of study** 6 years

#### Programme information

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

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

#### Admission requirements

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

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

#### Other programme-specific information

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

##### Duration of study

(i) Six years of full-time study

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

## Practical/clinical/internship information

### Clinical experience (including practical work)

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

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

### Pass with distinction

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

## Curriculum: Year 1

Minimum credits: 124

### Fundamental modules

Language and study skills 110 (LST 110) - Credits: 6.00

Academic orientation 108 (UPO 108) - Credits: 0.00

Academic information management 102 (AIM 102) - Credits: 6.00

### Core modules

Biometry 120 (BME 120) - Credits: 16.00

Chemistry 151 (CMY 151) - Credits: 16.00

Introductory genetics 161 (GTS 161) - Credits: 8.00

Molecular and cell biology 111 (MLB 111) - Credits: 16.00

Medical terminology 180 (MTL 180) - Credits: 12.00

Physics for biology students 131 (PHY 131) - Credits: 16.00

Animal diversity 161 (ZEN 161) - Credits: 8.00

Mathematics 165 (WTW 165) - Credits: 16.00

Veterinary professional life 100 (VPL 100) - Credits: 2.00

## Curriculum: Year 2

Minimum credits: 150

### Core modules

Veterinary ethology and genetics 200 (VET 200) - Credits: 23.00

Animal science 210 (VKU 210) - Credits: 8.00

Animal science 220 (VKU 220) - Credits: 8.00

Animal science 222 (VKU 222) - Credits: 8.00

Veterinary comparative anatomy 200 (VCA 200) - Credits: 38.00

Veterinary physiology and histology 200 (VPH 200) - Credits: 33.00

Veterinary professional life 200 (VPL 200) - Credits: 7.00

Veterinary immunology 220 (VIM 220) - Credits: 6.00

Veterinary microbiology 210 (VEM 210) - Credits: 6.00



Veterinary professional life 121 (VPL 121) - Credits: 2.00

### Curriculum: Year 3

Minimum credits: 139

#### Core modules

General and organ pathology 300 (GOP 300) - Credits: 30.00

Veterinary toxicology 300 (TOX 300) - Credits: 14.00

Veterinary parasitology 300 (VTP 300) - Credits: 22.00

General surgery 320 (GNS 320) - Credits: 7.00

General veterinary pharmacology 300 (VPH 300) - Credits: 14.00

Introductory veterinary diagnostics 300 (IVD 300) - Credits: 24.00

Veterinary infectious diseases 300 (VIP 300) - Credits: 14.00

Veterinary professional life 300 (VPL 300) - Credits: 10.00

### Curriculum: Year 4

Minimum credits: 150

#### Core modules

Anaesthesiology 420 (ANV 420) - Credits: 8.00

Clinical pathology 410 (CLP 410) - Credits: 7.00

Diagnostic imaging 400 (DIM 400) - Credits: 17.00

Diagnostic pathology 400 (DPT 400) - Credits: 16.00

Equine medicine and surgery 410 (EQM 410) - Credits: 14.00

Porcine health and production 420 (PHP 420) - Credits: 5.00

Small animal medicine and surgery 400 (SAS 400) - Credits: 50.00

Veterinary professional life 400 (VPL 400) - Credits: 11.00

Veterinary reproduction 400 (VRP 400) - Credits: 17.00

Poultry health and production 420 (PLY 420) - Credits: 5.00

### Curriculum: Year 5

Minimum credits: 181

#### Core modules

Bovine health and production 510 (BHP 510) - Credits: 25.00

Veterinary epidemiology 510 (EPL 510) - Credits: 10.00

Small stock health and production 510 (SSH 510) - Credits: 25.00

Veterinary business management 510 (VPL 510) - Credits: 10.00

One health 510 (VOH 510) - Credits: 7.00

Veterinary public health 510 (VPH 510) - Credits: 14.00

Diagnostic pathology 510 (DPT 510) - Credits: 9.00

Veterinary core practice 601 (VCP 601) - Credits: 53.00

Veterinary elective practice 601 (VEP 601) - Credits: 28.00

### Curriculum: Final year

Minimum credits: 159

#### Core modules

Veterinary core practice 602 (VCP 602) - Credits: 53.00



Veterinary core practice 603 (VCP 603) - Credits: 54.00

Veterinary elective practice 602 (VEP 602) - Credits: 28.00

Veterinary elective practice 603 (VEP 603) - Credits: 24.00

## Master's

### **MMedVet Anaesthesiology (Coursework) (08250132)**

**Duration of study**                      3 years

#### **Programme information**

This programme is offered by the Department of Companion Animal Clinical Studies.

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

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

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.

Also consult the UP General Regulations

#### **Admission requirements**

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

#### **Additional requirements**

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

#### **Examinations and pass requirements**

Also consult the applicable General Regulations.

##### **Conferment of the degree**

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

##### **Examinations**

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

[Anaesthesiology 800](#) (ANV 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

[Mini-dissertation: Anaesthesiology 890](#) (ANV 890) - Credits: 90.00

## MMedVet Bovine Health and Production (Coursework) (08250055)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Production Animal Sciences.

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

The MMedVet degree may entitle the holder to registration as a specialist with the South African Veterinary

Council together with other requirements as determined by Council. Candidates are encouraged to review current Council guidelines on specialist registration.

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.

Also consult the UP General Regulations

## **Admission requirements**

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## **Additional requirements**

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## **Examinations and pass requirements**

Also consult the applicable General Regulations.

### **Conferment of the degree**

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### **Examinations**

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## **Research information**

### **Mini-dissertation**

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Bovine health and production 800 (BHP 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Bovine health and production 890 (BHP 890) - Credits: 90.00

## MMedVet Clinical Laboratory Diagnostics (Coursework) (08250192)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Companion Animal Clinical Studies.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of

study lies, may require a candidate to pass an entrance examination.

### **Additional requirements**

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

### **Examinations and pass requirements**

Also consult the applicable General Regulations.

#### **Conferment of the degree**

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

#### **Examinations**

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

### **Research information**

#### **Mini-dissertation**

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.



## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Clinical laboratory diagnostics 800 (KDK 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Clinical laboratory diagnostics 890 (KDK 890) - Credits: 90.00

## MMedVet Diagnostic Imaging (Coursework) (08250143)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Companion Animal Clinical Studies.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## Other programme-specific information

Specific prerequisites for the programme:

BVScHons with the following modules:

ANG 774 Anatomy and three of the following depending on specie bias:

- DIM 781 Radiology: Dogs and cats
- DIM 782 Non-radiological diagnostic imaging of dogs and cats
- DIM 783 Radiology: Horses
- DIM 784 Non-radiological diagnostic imaging of horses
- GEN 703 Equine medicine
- GEN 707 Small animal medicine

## Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.



## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Diagnostic imaging 870 (DIM 870) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Diagnostic imaging 890 (DIM 890) - Credits: 90.00

## MMedVet Equine Medicine (Coursework) (08250056)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Companion Animal Clinical Studies.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

[Equine medicine 802](#) (GEN 802) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Equine medicine 892 (GEN 892) - Credits: 90.00

## MMedVet Equine Surgery (Coursework) (08251122)

**Duration of study** 3 years

### Programme information

This programme is offered by the Department of Companion Animal Clinical Studies.

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

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

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.

Also consult the UP General Regulations

### Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

### Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

### Examinations and pass requirements

Also consult the applicable General Regulations.

#### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

#### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

[Surgery 804](#) (CHV 804) - Credits: 270.00

## Curriculum: Final year

### Core modules

[Mini-dissertation: Equine surgery 890](#) (CHV 890) - Credits: 90.00

## MMedVet Laboratory Animal Science (Coursework) (08250212)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Paraclinical Sciences.

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

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

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.

Also consult the UP General Regulations

## **Admission requirements**

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## **Additional requirements**

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## **Examinations and pass requirements**

Also consult the applicable General Regulations.

### **Conferment of the degree**

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### **Examinations**

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## **Research information**

### **Mini-dissertation**

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Laboratory animal science 800 (PFK 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Laboratory animal science 890 (PFK 890) - Credits: 90.00

## MMedVet Ophthalmology (Coursework) (08250252)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Companion Animal Clinical Studies.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Ophthalmology 800 (OFM 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Ophthalmology 890 (OFM 890) - Credits: 90.00

## MMedVet Pathology (Coursework) (08250102)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Paraclinical Sciences.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00



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## Curriculum: Year 2

### Core modules

Pathology 800 (PAT 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Pathology 890 (PAT 890) - Credits: 90.00

## MMedVet Pharmacology (Coursework) (08251132)

**Duration of study** 3 years

### Programme information

This programme is offered by the Department of Paraclinical Sciences.

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

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

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.

Also consult the UP General Regulations

### Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

### Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

### Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical

training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Pharmacology 800 (FAK 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Pharmacology 895 (FAK 895) - Credits: 90.00

## MMedVet Pig Herd Health (Coursework) (08250183)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Production Animal Studies.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

[Pig herd health 800](#) (VKH 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

[Mini-dissertation: Pig herd health 890](#) (VKH 890) - Credits: 90.00

## MMedVet Poultry Diseases (Coursework) (08250172)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Production Animal Studies.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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.

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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Poultry health and production 800 (PHP 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Poultry diseases 890 (PVT 890) - Credits: 90.00

## MMedVet Reproduction (Coursework) (08250032)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Production Animal Studies.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or

authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.



## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Reproduction 800 (GSK 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation 891 (GSK 891) - Credits: 90.00

## MMedVet Small Animal Medicine (Coursework) (08250057)

**Duration of study** 3 years

### Programme information

This programme is offered by the Department of Companion Animal Clinical Studies.

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

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

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.

Also consult the UP General Regulations

### Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

### Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

### Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### **Examinations**

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## **Research information**

### **Mini-dissertation**

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## **Pass with distinction**

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## **Curriculum: Year 1**

### **Fundamental modules**

[Research methodology 813](#) (VRM 813) - Credits: 0.00

## **Curriculum: Year 2**

### **Core modules**

[Small animal medicine 803](#) (GEN 803) - Credits: 270.00

## **Curriculum: Final year**

## Core modules

Mini-dissertation: Small animal medicine 893 (GEN 893) - Credits: 90.00

## MMedVet Small Animal Surgery (Coursework) (08250024)

**Duration of study** 3 years

### Programme information

This programme is offered by the Department of Companion Animal Clinical Studies.

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

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

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.

Also consult the UP General Regulations

### Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

### Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

### Examinations and pass requirements

Also consult the applicable General Regulations.

#### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

#### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.



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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

[Surgery 803](#) (CHV 803) - Credits: 270.00

## Curriculum: Final year

### Core modules

[Mini-dissertation: Small animal surgery 892](#) (CHV 892) - Credits: 90.00

## MMedVet Small Stock Herd Health (Coursework) (08250242)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Production Animal Studies.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Small stock herd health 800 (KKS 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Small stock herd health 890 (KKS 890) - Credits: 90.00

## MMedVet Toxicology (Coursework) (08251142)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Paraclinical Sciences.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an

intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## **Additional requirements**

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

## **Examinations and pass requirements**

Also consult the applicable General Regulations.

### **Conferment of the degree**

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### **Examinations**

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## **Research information**

### **Mini-dissertation**

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.



## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

Toxicology 800 (TOK 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Toxicology 890 (TOK 890) - Credits: 90.00

## MMedVet Veterinary Public Health (Coursework) (08250042)

**Duration of study** 3 years

## Programme information

This programme is offered by the Department of Paraclinical Sciences.

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

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

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.

Also consult the UP General Regulations

## Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

## Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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



## Examinations and pass requirements

Also consult the applicable General Regulations.

### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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.

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## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

[Veterinary public health 800](#) (VVD 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Veterinary public health 890 (VVD 890) - Credits: 90.00

## MMedVet Wildlife Diseases (Coursework) (08250222)

**Duration of study** 3 years

### Programme information

This programme is offered by the Department of Production Animal Studies.

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

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

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.

Also consult the UP General Regulations

### Admission requirements

Subject to the stipulations of the applicable UP General Regulations, a candidate must be in possession of the BVSc or an equivalent degree; and have two (2) years of applicable experience or one year of training as an intern at a recognized training facility. In certain cases, the head of department under which a specific field of study lies, may require a candidate to pass an entrance examination.

### Additional requirements

Candidates are required to be qualified veterinarians registered with the South African Veterinary Council or authorized by the South African Veterinary Council and to work in the field of specialization under supervision of an approved supervisor for the required duration at a facility approved for this purpose.

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

### Examinations and pass requirements

Also consult the applicable General Regulations.

#### Conferment of the degree

The MMedVet is conferred by virtue of completion of a minimum of 90 weeks of clinical training, examination in specialist module, and a mini-dissertation

#### Examinations

The examination(s) in the specialist field of study may only be taken on completion of the minimum clinical training.

The nature and duration of the specialist module's 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.

A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.

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.

## Research information

### Mini-dissertation

(Also consult the General Regulations)

A student must submit a mini-dissertation, which deals with the particular field of specialization.

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 specialization. (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. 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.

## Pass with distinction

In order to obtain the degree with distinction, a minimum final mark of 75% is required for the field of specialization and the mini-dissertation.

## Curriculum: Year 1

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

## Curriculum: Year 2

### Core modules

[Veterinary wildlife studies 800](#) (WLS 800) - Credits: 270.00

## Curriculum: Final year

### Core modules

[Mini-dissertation: Wildlife diseases 890](#) (WSK 890) - Credits: 90.00

## MSc Ruminant Health (Coursework) (08251024)

**Duration of study** 2 years

## Programme information

This programme is offered by the Department of Paraclinical Sciences.

This degree programme underlines the major health and production considerations in domesticated ruminants. It

caters for the needs of candidates who wish to extend their knowledge and skills that they have gained during their undergraduate training and aims to allow them to practise at a higher level.

The curriculum consists of compulsory core and elective theoretical modules (90 credits) as well as a mini-dissertation (90 credits).

Also consult General Regulations.

Students are required to confirm whether a module will be presented in any particular year. This enquiry should be directed to the relevant head of department according to the syllabi information provided in the list of modules in this publication.

## **Admission requirements**

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

Two years of professional experience might be required in certain cases.

## **Additional requirements**

In cases where web-based/online modules are offered, basic computer skills is required in order to successfully participate in the degree 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 also be required to pass of proficiency test in English (TOEFL).

## **Examinations and pass requirements**

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.

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

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

## **Research information**

Also consult the General Regulations.

Candidates must submit a mini-dissertation which deals with an applied field of study. The topic is determined in consultation with the supervisor and the head of department, and 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.)

An internal as well as external examiner will evaluate the mini-dissertation. The supervisor may not be an examiner.

The average mark of the separate marks awarded by all examiners constitutes the final mark for the mini-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.

### Pass with distinction

The degree is conferred with distinction on a student who has obtained at least 75% for the mini-dissertation and a weighted average of at least 75% in the other modules needed to comply with degree requirements, provided that a minimum pass mark of 60% in all the other modules have been obtained.

### Curriculum: Year 1

Student must choose any appropriate module on 800 level to the value of at least 10 credits, approved by the HoD

#### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

#### Core modules

[Ruminant health 801](#) (RUM 801) - Credits: 40.00

#### Elective modules

[Small stock health 801](#) (SSH 801) - Credits: 40.00

[Bovine herd health 801](#) (BHH 801) - Credits: 40.00

### Curriculum: Final year

#### Core modules

[Mini-dissertation: Ruminant health 890](#) (RUM 890) - Credits: 90.00

## MSc Tropical Animal Health (Coursework) (08251020)

**Duration of study** 2 years

### Programme information

This degree is offered as a combination of e-learning, face-to-face teaching and a compulsory collaborative induction/field-workshop. It has the following components:

- A two week compulsory induction/field-workshop
- Compulsory core modules
- Elective modules (Theory-based and Skills-based)
- Mini-dissertation

For the MSc Tropical Animal Health the mini-dissertation will include an oral examination conducted face to face or via video conference. The oral examining panel will include an examiner from each institute (not the supervisor). A mark will be given which will constitute 10% of the final mini-dissertation mark. The dissertation will also be examined by one internal and one external examiner as stipulated by the UP regulations; a mark will be given which will constitute 90% of the final mini-dissertation mark.

Also consult General Regulations.

Students are required to confirm whether a module will be presented in any particular year. This enquiry should be directed to the relevant head of department according to the syllabi information provided in the list of modules in this publication.

## Admission requirements

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

Two years of professional experience might be required in certain cases.

### Additional Requirements

In cases where web-based/online modules are offered, basic computer skills is required in order to successfully participate in the degree 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).

### International requirements

International students have to ensure they are aware of all aspects pertaining to them to study at the University of Pretoria which can be found at [www.up.ac.za/isd](http://www.up.ac.za/isd).

## Additional requirements

According to the Bologna Bachelor-Master structure, a Masters degree is required to register at ITM. (Note: A four-year BSc degree in the South African context is equivalent to a Masters degree in the Bologna system). Two years of professional experience might be required in certain cases. It remains the prerogative of the head of department (UP) or course director (ITM) 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. The web-based/online nature of the modules requires basic computer skills in order to successfully participate in the degree programme.

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

In cases where web-based/online modules are offered, basic computer skills is required in order to successfully participate in the degree 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 also be required to pass of proficiency test in English (TOEFL).

## Examinations and pass requirements

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.

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

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

## Research information

Also consult the General Regulations.

Candidates must submit a mini-dissertation which deals with an applied field of study. The topic is determined in consultation with the supervisor and the head of department, and 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.)

An internal as well as external examiner will evaluate the mini-dissertation. The supervisor may not be an examiner.

The average mark of the separate marks awarded by all examiners constitutes the final mark for the mini-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.

### Pass with distinction

The degree is conferred with distinction on a student who has obtained at least 75% for the mini-dissertation and a weighted average of at least 75% in the other modules needed to comply with degree requirements, provided that a minimum pass mark of 60% in all the other modules have been obtained.

### Curriculum: Year 1

Choose modules to the value of 48 credits from the two lists of elective modules below of which only 18 credits (two modules) may be from the Skills-based elective modules

#### Fundamental modules

Research methodology 812 (VRM 812) - Credits: 9.00

#### Core modules

One health: basic concepts 801 (OHB 801) - Credits: 12.00

Basic epidemiology 802 (EPL 802) - Credits: 12.00

Laboratory diagnostics 811 (AHE 811) - Credits: 9.00

#### Elective modules

Applied veterinary helminthology 811 (AVH 811) - Credits: 9.00

Applied veterinary virology 811 (AVV 811) - Credits: 9.00

Selected tick identification 811 (TCK 811) - Credits: 9.00

Applied molecular biology 816 (VMB 816) - Credits: 9.00

Applied serology 811 (ASR 811) - Credits: 9.00

Applied veterinary bacteriology 817 (AVB 817) - Credits: 9.00

Applied epidemiology 804 (EPL 804) - Credits: 9.00

Ticks and tick-borne diseases 814 (TBD 814) - Credits: 9.00

Advanced one health 812 (AHE 812) - Credits: 12.00

Advanced one health: public health 813 (AHE 813) - Credits: 12.00

Animal health management: high impact and emerging diseases 814 (AHE 814) - Credits: 12.00

Advanced one health: policy 815 (AHE 815) - Credits: 12.00

Advanced epidemiology 803 (EPL 803) - Credits: 12.00

Surveillance and survey methodology 816 (AHE 816) - Credits: 12.00

General vector-borne diseases 811 (GVD 811) - Credits: 9.00

### Curriculum: Final year



### Core modules

Mini-dissertation 895 (AHE 895) - Credits: 90.00

## MSc Veterinary Science Companion Animal Clinical Studies (08251015)

**Duration of study** 1 year

### Programme information

This programme is offered by the Department of Companion Animal Clinical Studies.

Also consult the UP General Regulations.

The MSc degree in Veterinary Science is a research degree. The degree is conferred by virtue of the successful completion of a dissertation.

### Admission requirements

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

### Additional requirements

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).

### Research information

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

Before or on submission of the final copy of the dissertation, a student must submit a draft article for publication to the supervisor. (General Regulation 12(a) and (b)) The draft article should be based on the research that the student has conducted for the dissertation and be approved by the supervisor concerned. The supervisor should then have the opportunity to take the paper through all the processes of revision and resubmission as may be necessary and/or appropriate in order to achieve publication.

### Pass with distinction

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

### Curriculum: Final year

#### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

#### Core modules

Dissertation: Companion animal clinical studies 803 (VWE 803) - Credits: 180.00

## MSc Veterinary Epidemiology (Coursework) (08251022)

**Duration of study** 2 years

## Programme information

This programme is offered by the Department of Production Animal Studies.

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

The curriculum consists of compulsory core and elective theoretical modules (90 credits) as well as a mini-dissertation (90 credits). It is primarily a web-based modular degree programme.

Also consult General Regulations.

Students are required to confirm whether a module will be presented in any particular year. This enquiry should be directed to the relevant head of department according to the syllabi information provided in the list of modules in this publication.

## Admission requirements

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

Two years of professional experience might be required in certain cases.

## Additional requirements

In cases where web-based/online modules are offered, basic computer skills is required in order to successfully participate in the degree 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 also be required to pass a proficiency test in English (TOEFL).

## Examinations and pass requirements

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.

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

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

## Research information

Also consult the General Regulations.

Candidates must submit a mini-dissertation which deals with an applied field of study. The topic is determined in consultation with the supervisor and the head of department, and 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.)

An internal as well as external examiner will evaluate the mini-dissertation. The supervisor may not be an examiner.

The average mark of the separate marks awarded by all examiners constitutes the final mark for the mini-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.

### Pass with distinction

The degree is conferred with distinction on a student who has obtained at least 75% for the mini-dissertation and a weighted average of at least 75% in the other modules needed to comply with degree requirements, provided that a minimum pass mark of 60% in all the other modules have been obtained.

### Curriculum: Year 1

In addition to the core modules please select relevant elective module(s), in consultation with the HoD and supervisor, to the credit value of at least 15 credits.

#### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

#### Core modules

[Basic veterinary epidemiology 851](#) (EPL 851) - Credits: 10.00

[Biostatistics in veterinary science 852](#) (EPL 852) - Credits: 20.00

[Analytical veterinary epidemiology 853](#) (EPL 853) - Credits: 20.00

[Animal health information management 855](#) (EPL 855) - Credits: 5.00

[Scientific reasoning in veterinary epidemiology 856](#) (EPL 856) - Credits: 5.00

[Advanced topics in veterinary epidemiology 859](#) (EPL 859) - Credits: 15.00

### Curriculum: Final year

#### Core modules

[Mini-dissertation: Veterinary epidemiology 890](#) (EPL 890) - Credits: 90.00

## MSc Veterinary Industrial Pharmacology (Coursework) (08251018)

**Duration of study** 2 years

### Programme information

This programme is offered by the Department of Paraclinical Sciences.

The curriculum consists of compulsory core modules (90 credits) as well as a mini-dissertation (90 credits).

Also consult General Regulations.

Students are required to confirm whether a module will be presented in any particular year. This enquiry should be directed to the relevant head of department according to the syllabi information provided in the list of modules in this publication.

### Admission requirements

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

Two years of professional experience might be required in certain cases.

### **Additional requirements**

In cases where web-based/online modules are offered, basic computer skills is required in order to successfully participate in the degree 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 also be required to pass of proficiency test in English (TOEFL).

### **Examinations and pass requirements**

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.

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

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

### **Research information**

Also consult the General Regulations.

Candidates must submit a mini-dissertation which deals with an applied field of study. The topic is determined in consultation with the supervisor and the head of department, and 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.)

An internal as well as external examiner will evaluate the mini-dissertation. The supervisor may not be an examiner.

The average mark of the separate marks awarded by all examiners constitutes the final mark for the mini-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.

### **Pass with distinction**

The degree is conferred with distinction on a student who has obtained at least 75% for the mini-dissertation and a weighted average of at least 75% in the other modules needed to comply with degree requirements, provided that a minimum pass mark of 60% in all the other modules have been obtained.

### **Curriculum: Year 1**

#### **Fundamental modules**

Research methodology 813 (VRM 813) - Credits: 0.00

#### **Core modules**

Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00

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Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 40.00

## Curriculum: Final year

### Core modules

Minidissertation: Veterinary industrial pharmacology 890 (VIP 890) - Credits: 90.00

## MSc Veterinary Public Health (Coursework) (08251025)

**Duration of study** 2 years

### Programme information

This programme is offered by the Department of Paraclinical Sciences.

The curriculum consists of compulsory core modules (90 credits) as well as a mini-dissertation (90 credits).

Also consult General Regulations.

Students are required to confirm whether a module will be presented in any particular year. This enquiry should be directed to the relevant head of department according to the syllabi information provided in the list of modules in this publication.

### Admission requirements

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

Two years of professional experience might be required in certain cases.

### Additional requirements

In cases where web-based/online modules are offered, basic computer skills is required in order to successfully participate in the degree 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 also be required to pass of proficiency test in English (TOEFL).

### Examinations and pass requirements

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.

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

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

### Research information

Also consult the General Regulations.

Candidates must submit a mini-dissertation which deals with an applied field of study. The topic is determined in

consultation with the supervisor and the head of department, and 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.)

An internal as well as external examiner will evaluate the mini-dissertation. The supervisor may not be an examiner.

The average mark of the separate marks awarded by all examiners constitutes the final mark for the mini-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.

## Pass with distinction

The degree is conferred with distinction on a student who has obtained at least 75% for the mini-dissertation and a weighted average of at least 75% in the other modules needed to comply with degree requirements, provided that a minimum pass mark of 60% in all the other modules have been obtained.

## Curriculum: Year 1

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

### Core modules

Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00

Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00

Basic veterinary epidemiology 851 (EPL 851) - Credits: 10.00

## Curriculum: Final year

### Core modules

Mini-dissertation: Veterinary public health (VPH 890) - Credits: 90.00

## MSc Veterinary Reproduction (Coursework) (08251023)

**Duration of study** 2 years

## Programme information

This programme is offered by the Department of Production Animal Studies.

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

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

The curriculum consists of compulsory core and elective theoretical modules (90 credits) as well as a mini-

dissertation (90 credits).

Also consult General Regulations.

Students are required to confirm whether a module will be presented in any particular year. This enquiry should be directed to the relevant head of department according to the syllabi information provided in the list of modules in this publication.

### **Admission requirements**

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

Two years of professional experience might be required in certain cases.

### **Additional requirements**

In cases where web-based/online modules are offered, basic computer skills is required in order to successfully participate in the degree 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 also be required to pass of proficiency test in English (TOEFL).

### **Examinations and pass requirements**

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.

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

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

### **Research information**

Also consult the General Regulations.

Candidates must submit a mini-dissertation which deals with an applied field of study. The topic is determined in consultation with the supervisor and the head of department, and 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.)

An internal as well as external examiner will evaluate the mini-dissertation. The supervisor may not be an examiner.

The average mark of the separate marks awarded by all examiners constitutes the final mark for the mini-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.



## Pass with distinction

The degree is conferred with distinction on a student who has obtained at least 75% for the mini-dissertation and a weighted average of at least 75% in the other modules needed to comply with degree requirements, provided that a minimum pass mark of 60% in all the other modules have been obtained.

## Curriculum: Year 1

### Elective Modules:

Choose 3 elective modules from the list of electives

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

### Core modules

[Reproductive physiology 801](#) (GSK 801) - Credits: 15.00

### Elective modules

[Bovine reproduction 806](#) (GSK 806) - Credits: 25.00

[Small stock reproduction 807](#) (GSK 807) - Credits: 25.00

[Equine reproduction 808](#) (GSK 808) - Credits: 25.00

[Small animal reproduction 809](#) (GSK 809) - Credits: 25.00

[Wildlife reproduction 810](#) (GSK 810) - Credits: 25.00

## Curriculum: Final year

### Core modules

[Mini-dissertation 891](#) (GSK 891) - Credits: 90.00

## MSc Veterinary Science Anatomy and Physiology (08251014)

**Duration of study** 1 year

### Programme information

This programme is offered by the Department of Anatomy and Physiology.

Also consult the UP General Regulations.

The MSc degree in Veterinary Science is a research degree. The degree is conferred by virtue of the successful completion of a dissertation.

### Admission requirements

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

### Additional requirements

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).



## Research information

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

Before or on submission of the final copy of the dissertation, a student must submit a draft article for publication to the supervisor. (General Regulation 12(a) and (b)) The draft article should be based on the research that the student has conducted for the dissertation and be approved by the supervisor concerned. The supervisor should then have the opportunity to take the paper through all the processes of revision and resubmission as may be necessary and/or appropriate in order to achieve publication.

## Pass with distinction

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

## Curriculum: Final year

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

### Core modules

Dissertation: Anatomy and physiology 802 (VWE 802) - Credits: 180.00

## MSc Veterinary Science Paraclinical Sciences (08251016)

**Duration of study** 1 year

## Programme information

This programme is offered by the Department of Paraclinical Sciences.

Also consult the UP General Regulations.

The MSc degree in Veterinary Science is a research degree. The degree is conferred by virtue of the successful completion of a dissertation.

## Admission requirements

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

## Additional requirements

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).

## Research information

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

Before or on submission of the final copy of the dissertation, a student must submit a draft article for publication to the supervisor. (General Regulation 12(a) and (b)) The draft article should be based on the research that the student has conducted for the dissertation and be approved by the supervisor concerned. The supervisor should

then have the opportunity to take the paper through all the processes of revision and resubmission as may be necessary and/or appropriate in order to achieve publication.

### Pass with distinction

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

### Curriculum: Final year

#### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

#### Core modules

Dissertation: Paraclinical sciences 804 (VWE 804) - Credits: 180.00

## MSc Veterinary Science Production Animal Studies (08251017)

**Duration of study** 1 year

### Programme information

This programme is offered by the Department of Production Animal Studies.

Also consult the UP General Regulations.

The MSc degree in Veterinary Science is a research degree. The degree is conferred by virtue of the successful completion of a dissertation.

### Admission requirements

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

### Additional requirements

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).

### Research information

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

Before or on submission of the final copy of the dissertation, a student must submit a draft article for publication to the supervisor. (General Regulation 12(a) and (b)) The draft article should be based on the research that the student has conducted for the dissertation and be approved by the supervisor concerned. The supervisor should then have the opportunity to take the paper through all the processes of revision and resubmission as may be necessary and/or appropriate in order to achieve publication.

### Pass with distinction

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

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## Curriculum: Final year

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

### Core modules

Dissertation: Production animal studies 805 (VWE 805) - Credits: 180.00

## MSc Veterinary Science Tropical Diseases (08250902)

**Duration of study** 1 year

### Programme information

This programme is offered by the Department of Veterinary Tropical Diseases.

Also consult the UP General Regulations.

The MSc degree in Veterinary Science is a research degree. The degree is conferred by virtue of the successful completion of a dissertation.

### Admission requirements

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

### Additional requirements

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).

### Research information

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

Before or on submission of the final copy of the dissertation, a student must submit a draft article for publication to the supervisor. (General Regulation 12(a) and (b)) The draft article should be based on the research that the student has conducted for the dissertation and be approved by the supervisor concerned. The supervisor should then have the opportunity to take the paper through all the processes of revision and resubmission as may be necessary and/or appropriate in order to achieve publication.

### Pass with distinction

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

## Curriculum: Final year

### Fundamental modules

Research methodology 813 (VRM 813) - Credits: 0.00

### Core modules

Dissertation: Veterinary tropical diseases 801 (VWE 801) - Credits: 180.00

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## **MSc Wildlife Health, Ecology and Management (Coursework) (08251019)**

**Duration of study**                      2 years

### **Programme information**

This programme is offered by the Department of Production Animal Sciences.

This degree programme provides training in knowledge and skills to manage wildlife health, production and conservation. This includes technical knowledge of production systems such as housing, handling, husbandry, disease prevention, understanding the economic principles in this economy, understanding ecology and ecosystem management, understanding of policies and legislation relevant to wildlife areas and for veterinarians, veterinary specific knowledge such as chemical manipulation, disease recognition and treatment. It will also include softer skills of community considerations in wildlife economies, leadership, communication and strategy skills.

The curriculum consists of compulsory core and elective theoretical modules (90 credits) as well as a mini-dissertation (90 credits).

Also consult General Regulations.

Students are required to confirm whether a module will be presented in any particular year. This enquiry should be directed to the relevant head of department according to the syllabi information provided in the list of modules in this publication.

### **Admission requirements**

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BScAgric, BVSc or equivalent degree or a relevant postgraduate diploma (on NQF level 8) is required.

Two years of professional experience might be required in certain cases.

### **Additional requirements**

In cases where web-based/online modules are offered, basic computer skills is required in order to successfully participate in the degree 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 also be required to pass of proficiency test in English (TOEFL).

### **Examinations and pass requirements**

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.

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

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

## Research information

Also consult the General Regulations.

Candidates must submit a mini-dissertation which deals with an applied field of study. The topic is determined in consultation with the supervisor and the head of department, and 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.)

An internal as well as external examiner will evaluate the mini-dissertation. The supervisor may not be an examiner.

The average mark of the separate marks awarded by all examiners constitutes the final mark for the mini-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.

## Pass with distinction

The degree is conferred with distinction on a student who has obtained at least 75% for the mini-dissertation and a weighted average of at least 75% in the other modules needed to comply with degree requirements, provided that a minimum pass mark of 60% in all the other modules have been obtained.

## Curriculum: Year 1

### Electives:

**Choose 1 elective to the value of 15 credits or any appropriate 800-level module, relevant to the field of study**

### Fundamental modules

[Research methodology 813](#) (VRM 813) - Credits: 0.00

### Core modules

[Wildlife management and production 800](#) (NLB 800) - Credits: 20.00

[Wildlife ecology 810](#) (NLB 810) - Credits: 20.00

[Wildlife health advanced 810](#) (WLS 810) - Credits: 20.00

[Transfrontier parks and conservation 811](#) (WLS 811) - Credits: 15.00

### Elective modules

[Wildlife health introduction 812](#) (WLS 812) - Credits: 15.00

[Wildlife veterinary specific 813](#) (WLS 813) - Credits: 15.00

## Curriculum: Final year

### Core modules

[Mini-dissertation: Wildlife health, ecology and management 890](#) (WLS 890) - Credits: 90.00

## Doctorate

### PhD Anatomy and Physiology (08261006)

**Duration of study** 2 years

#### Programme information

This programme is offered by the Department of Anatomy and Physiology.

The PhD degree is conferred by virtue of the successful completion of a thesis and an oral defence. Consult the General Regulations.

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

#### Admission requirements

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

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

#### Additional requirements

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

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

#### Research information

Before or on submission of the final copy of the thesis, a student must submit proof of acceptance of an article for publication issued by an accredited journal, to the Head: Student Administration. (UP Gen Regulation 51) The accepted article should be based on the research that the student has conducted for the thesis and should have been approved by the supervisor concerned. The supervisor shall be responsible for ensuring that the article has

been taken through all the processes of revision and resubmission, as may be necessary. In exceptional cases the Dean may allow a student to graduate subject to UP Regulations.

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

## Curriculum: Year 1

### Core modules

Thesis: Anatomy and physiology 902 (VWE 902) - Credits: 360.00

## Curriculum: Final year

### Core modules

Thesis: Anatomy and physiology 902 (VWE 902) - Credits: 360.00

## PhD Companion Animal Clinical Studies (08261007)

**Duration of study** 2 years

### Programme information

This programme is offered by the Department of Companion Animal Clinical Studies.

The PhD degree is conferred by virtue of the successful completion of a thesis and an oral defence. Consult the General Regulations.

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

### Admission requirements

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

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

### Additional requirements

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

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

## Research information

Before or on submission of the final copy of the thesis, a student must submit proof of acceptance of an article for publication issued by an accredited journal, to the Head: Student Administration. (UP Gen Regulation 51) The accepted article should be based on the research that the student has conducted for the thesis and should have been approved by the supervisor concerned. The supervisor shall be responsible for ensuring that the article has been taken through all the processes of revision and resubmission, as may be necessary. In exceptional cases the Dean may allow a student to graduate subject to UP Regulations.

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

## Curriculum: Year 1

### Core modules

Thesis: Companion animal clinical sciences 903 (VWE 903) - Credits: 360.00

## Curriculum: Final year

### Core modules

Thesis: Companion animal clinical sciences 903 (VWE 903) - Credits: 360.00

## PhD Paraclinical Sciences (08261008)

**Duration of study** 2 years

## Programme information

This programme is offered by the Department of Paraclinical Sciences.

The PhD degree is conferred by virtue of the successful completion of a thesis and an oral defence. Consult the General Regulations.

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

## Admission requirements

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

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

## Additional requirements

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

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

## Research information

Before or on submission of the final copy of the thesis, a student must submit proof of acceptance of an article for publication issued by an accredited journal, to the Head: Student Administration. (UP Gen Regulation 51) The accepted article should be based on the research that the student has conducted for the thesis and should have been approved by the supervisor concerned. The supervisor shall be responsible for ensuring that the article has been taken through all the processes of revision and resubmission, as may be necessary. In exceptional cases the Dean may allow a student to graduate subject to UP Regulations.

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

## Curriculum: Year 1

### Core modules

Thesis: Paraclinical sciences 904 (VWE 904) - Credits: 360.00

## Curriculum: Final year

### Core modules

Thesis: Paraclinical sciences 904 (VWE 904) - Credits: 360.00

## PhD Production Animal Studies (08261009)

**Duration of study** 2 years

## Programme information

This programme is offered by the Department of Production Animal Studies.

The PhD degree is conferred by virtue of the successful completion of a thesis and an oral defence. Consult the General Regulations.

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

## Admission requirements

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

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

## Additional requirements

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

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

## Research information

Before or on submission of the final copy of the thesis, a student must submit proof of acceptance of an article for publication issued by an accredited journal, to the Head: Student Administration. (UP Gen Regulation 51) The accepted article should be based on the research that the student has conducted for the thesis and should have been approved by the supervisor concerned. The supervisor shall be responsible for ensuring that the article has been taken through all the processes of revision and resubmission, as may be necessary. In exceptional cases the Dean may allow a student to graduate subject to UP Regulations.

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

## Curriculum: Year 1

### Core modules

Thesis: Production animal studies 905 (VWE 905) - Credits: 360.00

## Curriculum: Final year

### Core modules

Thesis: Production animal studies 905 (VWE 905) - Credits: 360.00

## PhD Veterinary Tropical Diseases (08260272)

**Duration of study** 2 years

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## Programme information

This programme is offered by the Department of Veterinary Tropical Diseases.

The PhD degree is conferred by virtue of the successful completion of a thesis and an oral defence. Consult the General Regulations.

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

## Admission requirements

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

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

## Additional requirements

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

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

## Research information

Before or on submission of the final copy of the thesis, a student must submit proof of acceptance of an article for publication issued by an accredited journal, to the Head: Student Administration. (UP Gen Regulation 51) The accepted article should be based on the research that the student has conducted for the thesis and should have been approved by the supervisor concerned. The supervisor shall be responsible for ensuring that the article has been taken through all the processes of revision and resubmission, as may be necessary. In exceptional cases the Dean may allow a student to graduate subject to UP Regulations.

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

## Curriculum: Year 1



### Core modules

Thesis: Veterinary tropical diseases 901 (VWE 901) - Credits: 360.00

### Curriculum: Final year

### Core modules

Thesis: Veterinary tropical diseases 901 (VWE 901) - Credits: 360.00

## Modules

### Disease surveillance and laboratory diagnostics 803 (AHE 803)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	25.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

#### Module content

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

### High impact diseases 804 (AHE 804)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 2

#### Module content

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

### Zoonoses 805 (AHE 805)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 2

## Module content

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

## Emerging and re-emerging diseases 806 (AHE 806)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	15.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

## Module content

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

## Animal health management 807 (AHE 807)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	30.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

## Module content

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

## Marketing and trade 808 (AHE 808)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	30.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

## Module content

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

## Policy, planning and legislation 809 (AHE 809)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 2

## Module content

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

## Communication and management 810 (AHE 810)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

## Module content

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

## Laboratory diagnostics 811 (AHE 811)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	9.00
<b>Programmes</b>	<a href="#">MSc Tropical Animal Health (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English



**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 1

### Module content

This module deals with the concepts and principles of field and laboratory diagnosis of infectious and parasitic diseases of livestock and wildlife including aspects of specimen collection and shipment, interpretation of laboratory results and basic laboratory management.

## Advanced one health 812 (AHE 812)

**Qualification** Postgraduate

**Module credits** 12.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 2

### Module content

(elective)

This module will provide students with an understanding of health in particular social-ecological systems, with a focus on understanding the relationship between ecosystem health and infectious diseases of animals and humans, in order to improve disease control policies, ecosystem sustainability, food security and rural development.

## Advanced one health: public health 813 (AHE 813)

**Qualification** Postgraduate

**Module credits** 12.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 1

### Module content

(elective)

This module will focus on the human dimension of One Health. It introduces an approach to formulate a zoonotic disease control programme. After the module students should be able to explain the disease burden of a particular zoonosis, to develop an epidemiological model, to analyse its broader determinants, to appraise and prioritise possible interventions based on effectiveness, cost, feasibility and acceptability and to identify implementation challenges in a specific public health system's context.

## Animal health management: high impact and emerging diseases 814 (AHE 814)

**Qualification** Postgraduate

**Module credits** 12.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 2

### Module content

(elective)

This module deals with the concepts and principles of basic animal health management for livestock production and trade in livestock and livestock commodities. There will be a special focus on the management of infectious diseases that have a high impact in terms of international trade because of their detrimental effects on livestock production and health and/or human health. The module will also examine the drivers for emerging and re-emerging diseases with special reference to the livestock/wildlife/human interface.

## Advanced one health: policy 815 (AHE 815)

**Qualification** Postgraduate

**Module credits** 12.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 1

### Module content

(elective)

Policy is generally defined as a plan of action on the part of a government, business or other organisation intended to influence decisions and actions in a particular direction. This module introduces the key principles in policy making in regard to animal health and trade in livestock or livestock products. It will consider the essentials of “effective” policy creation, the role of science and uncertainty in policy, policy analysis and the role of government versus the private sector in animal health.

## Surveillance and survey methodology 816 (AHE 816)

**Qualification** Postgraduate

**Module credits** 12.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 1

## Module content

(elective)

This module deals with the concepts and principles of terrestrial animal (livestock and wildlife) health surveillance; including the design; implementation and evaluation of surveillance system; the data sources; tools and methods available to perform effective surveillance; and the evaluation and analysis of surveillance data. This module will also provide an introduction to geographic information systems (GIS) and provide basic skills on how to use GIS in epidemiological studies.

### Mini-dissertation 890 (AHE 890)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	80.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Year

## Module content

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

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

### Mini-dissertation 895 (AHE 895)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MSc Tropical Animal Health (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Year

## Module content

A mini-dissertation must be submitted on an appropriate topic depending on the field of interest of the student. A research project of limited scope must be undertaken and written in the format of a mini-dissertation to fulfil the requirements of the MSc. The research topic is determined in consultation with the supervisor and head of department and the research project must be approved according to Faculty guidelines. Before or together with the mini-dissertation, a student must submit at least one draft article for publication in an acknowledged journal to the Faculty Administration, 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.



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## Academic information management 101 (AIM 101)

**Qualification** Undergraduate

**Module credits** 6.00



BA Audiology  
BA Extended programme  
BA Fine Arts  
BA Humanities  
BA Information Design  
BA Languages  
BA Speech-Language Pathology  
BA Sport and Leisure Studies Sport and Leisure in Society  
BA Sport and Leisure Studies Sport and Recreation Management  
BA Sport and Leisure Studies Sports Coaching Science  
BA Sport and Leisure Studies Sports Psychology  
BA Visual Studies  
BAdmin International Relations  
BAdmin Public Management  
BAdmin Public Management Public Administration  
BChD  
BCom  
BCom Accounting Sciences  
BCom Agribusiness Management  
BCom Business Management  
BCom Econometrics  
BCom Economics  
BCom Entrepreneurship  
BCom Financial Sciences  
BCom Human Resource Management  
BCom Informatics Information Systems  
BCom Investment Management  
BCom Marketing Management  
BCom Recreation and Sports Management  
BCom Statistics  
BCom Supply Chain Management  
BDietetics  
BDiv  
BDram  
BEEd Early Childhood Development and Foundation Phase  
BEEd Foundation Phase Teaching  
BEEd Intermediate Phase Teaching  
BEEd Senior Phase and Further Education and Training Teaching  
BIS Information Science  
BIS Multimedia  
BIS Publishing  
BIT Information Technology  
BMus  
BNurs  
BOH  
BOccTher  
BPhysio  
BPolSci International Studies  
BPolSci Political Studies  
BRad Diagnostics  
BSW  
BSc Computer Science  
BSc Construction Management  
BSc Information and Knowledge Systems  
BSc Quantity Surveying  
BSc Real Estate  
BSocSci Heritage and Cultural Tourism  
BSocSci Industrial Sociology and Labour Studies  
BSocSci Philosophy, Politics and Economics  
BSportSci  
BTRP  
BTh  
HCert Sports Science Education  
HCert Sports Science Sports Coaching  
MBChB

## Programmes



<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Separate classes for Afrikaans and English
<b>Academic organisation</b>	Information Science
<b>Period of presentation</b>	Semester 1

### Module content

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

## Academic information management 102 (AIM 102)

**Qualification** Undergraduate

**Module credits** 6.00



BA Law  
BCom Law  
BConSci Clothing Retail Management  
BConSci Food Retail Management  
BConSci Hospitality Management  
BSc Actuarial and Financial Mathematics  
BSc Applied Mathematics  
BSc Architecture  
BSc Biochemistry  
BSc Biological Sciences  
BSc Biotechnology  
BSc Chemistry  
BSc Culinary Science  
BSc Ecology  
BSc Engineering and Environmental Geology  
BSc Entomology  
BSc Environmental Sciences  
BSc Food Science  
BSc Genetics  
BSc Geography  
BSc Geoinformatics  
BSc Geology  
BSc Human Genetics  
BSc Human Physiology  
BSc Human Physiology, Genetics and Psychology  
BSc Interior Architecture  
BSc Landscape Architecture  
BSc Mathematical Statistics  
BSc Mathematics  
BSc Medical Sciences  
BSc Meteorology  
BSc Microbiology  
BSc Physics  
BSc Plant Science  
BSc Zoology  
BScAgric Agricultural Economics and Agribusiness Management  
BScAgric Animal Science  
BScAgric Animal and Pasture Science  
BScAgric Applied Plant and Soil Sciences  
BScAgric Plant Pathology  
BVSc  
LLB

## Programmes

## Service modules

Faculty of Education  
Faculty of Economic and Management Sciences  
Faculty of Humanities  
Faculty of Law  
Faculty of Health Sciences  
Faculty of Natural and Agricultural Sciences  
Faculty of Theology  
Faculty of Veterinary Science

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**Contact time** 2 lectures per week

**Language of tuition** Separate classes for Afrikaans and English

**Academic organisation** Information Science

**Period of presentation** Semester 2

**Module content**

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

**Academic information management 121 (AIM 121)**

**Qualification** Undergraduate

**Module credits** 4.00



BA Extended programme  
BA Humanities  
BA Languages  
BA Law  
BA Sport and Leisure Studies Sport and Leisure in Society  
BA Sport and Leisure Studies Sport and Recreation Management  
BA Sport and Leisure Studies Sports Coaching Science  
BA Sport and Leisure Studies Sports Psychology  
BCMP  
BChD  
BCom Extended programme  
BConSci Clothing Retail Management  
BConSci Food Retail Management  
BConSci Hospitality Management  
BDietetics  
BDiv  
BDram  
BEd Early Childhood Development and Foundation Phase  
BEd Foundation Phase Teaching  
BEd Intermediate Phase Teaching  
BEd Senior Phase and Further Education and Training Teaching  
BNurs  
BOH  
BOccTher  
BPhysio  
BPolSci International Studies  
BPolSci Political Studies  
BSW  
BSc Actuarial and Financial Mathematics  
BSc Applied Mathematics  
BSc Biochemistry  
BSc Biological Sciences  
BSc Biotechnology  
BSc Chemistry  
BSc Culinary Science  
BSc Ecology  
BSc Engineering and Environmental Geology  
BSc Entomology  
BSc Environmental Sciences  
BSc Extended programme - Biological and Agricultural Sciences  
BSc Extended programme - Mathematical Sciences  
BSc Extended programme - Physical Sciences  
BSc Food Science  
BSc Genetics  
BSc Geography  
BSc Geoinformatics  
BSc Geology  
BSc Human Genetics  
BSc Human Physiology  
BSc Human Physiology, Genetics and Psychology  
BSc Mathematical Statistics  
BSc Mathematics  
BSc Medical Sciences  
BSc Meteorology  
BSc Microbiology  
BSc Physics  
BSc Plant Science  
BSc Zoology  
BScAgric Agricultural Economics and Agribusiness Management  
BScAgric Animal Science  
BScAgric Animal and Pasture Science  
BScAgric Applied Plant and Soil Sciences  
BScAgric Plant Pathology  
BSocSci Heritage and Cultural Tourism  
BSocSci Industrial Sociology and Labour Studies  
BSocSci Philosophy, Politics and Economics  
BSportSci  
BTh  
Diploma in Theology  
HCert Sports Science Education  
HCert Sports Science Sports Coaching  
MBChB

## Programmes



<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week, MAMELODI
<b>Language of tuition</b>	Separate classes for Afrikaans and English
<b>Academic organisation</b>	Informatics
<b>Period of presentation</b>	Semester 2

### Module content

Apply effective search strategies in different technological environments. Demonstrate the ethical and fair use of information resources. Integrate 21st-century communications into the management of academic information.

## Anatomy 104 (ANG 104)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	24.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	5 demonstrations/4 lectures per week, 1 demonstration/3 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Anatomy and Physiology
<b>Period of presentation</b>	Year

### Module content

Basic anatomy and histology. Gross anatomy is based on dissection of the dog but includes applicable comparative anatomy of the horse and ruminant. Offered for DipVetNursing students.

## Anatomy 703 (ANG 703)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	32.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Anatomy and Physiology
<b>Period of presentation</b>	Year

### Module content

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



## Anatomy 705 (ANG 705)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	32.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Anatomy and Physiology
<b>Period of presentation</b>	Year

### Module content

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

## Anatomy 774 (ANG 774)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	30.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Anatomy and Physiology
<b>Period of presentation</b>	Year

### Module content

The number of lectures and credits will depend on the course compiled for the student. A formal module comprises at least 6 credits.

The modules are compiled for each student individually to fulfil the specific needs of the student concerned.

## Anaesthesiology 420 (ANV 420)

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

### Module content

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

## Anaesthesiology 771 (ANV 771)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	30.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

### Module content

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

## Anaesthesiology 800 (ANV 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	270.00
<b>Programmes</b>	<a href="#">MMedVet Anaesthesiology (Coursework)</a>
<b>Contact time</b>	5 discussion classes per week, 0.5 seminar per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

### 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.

## Mini-dissertation: Anaesthesiology 890 (ANV 890)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MMedVet Anaesthesiology (Coursework)</a>
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies



**Period of presentation** Year

### Applied serology 811 (ASR 811)

**Qualification** Postgraduate

**Module credits** 9.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 2

#### Module content

Skills training

The module will enable delegates to develop proficiency in procedures in veterinary immunology and serology, and to implement and standardize different serological techniques with special emphasis on ELISA and FA techniques.

### Applied veterinary bacteriology 817 (AVB 817)

**Qualification** Postgraduate

**Module credits** 9.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 2

#### Module content

Skills training

This module provides an introduction to the basic concepts of veterinary bacteriology, from sampling and handling of specimens to the methods and tools used for isolation and identification of bacteria of veterinary significance in the laboratory.

### Applied veterinary helminthology 811 (AVH 811)

**Qualification** Postgraduate

**Module credits** 9.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases



**Period of presentation** Semester 2

### Module content

Skills training

This module provides an introduction to the control of helminth infections of economic or public health importance in the tropics. The focus is on transmission of helminths of livestock and on sustainable methods to break the lifecycles. Practical study includes common parasitological techniques and interpretation of parasitological parameters.

## General nursing 111 (AVP 111)

**Qualification** Undergraduate

**Module credits** 14.00

**Programmes** [University Diploma Veterinary Nursing](#)

**Prerequisites** No prerequisites.

**Contact time** 2 practicals per week, 5 lectures per week

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 1

### Module content

Professional ethics, human relations, responsibilities towards the employer, the patient and the clients. Disinfection and hospital hygiene. General safety aspects and preventative measures during observation, hospitalisation, basic nursing procedures and treatment of patients. Administration and record keeping. Reporting to the veterinarian using correct medical terminology. Arrangements regarding the transportation of patients.

## Applied veterinary virology 811 (AVV 811)

**Qualification** Postgraduate

**Module credits** 9.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 2

### Module content

Skills training

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

## Bovine herd health 801 (BHH 801)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	40.00
<b>Programmes</b>	MSc Ruminant Health (Coursework)
<b>Prerequisites</b>	A BVSc, a four year BSc in Agriculture (Animal Science), Microbiology, Zoology or an equivalent degree
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

### Module content

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

## Bovine health and production 510 (BHP 510)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	25.00
<b>Programmes</b>	BVSc
<b>Contact time</b>	9 lectures per week, 3 practicals per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

### Module content

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

## Applied bovine health and production 650 (BHP 650)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	43.00
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	Yes, 7.9 practicals per week

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

### Module content

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

## Bovine health and production 800 (BHP 800)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Bovine Health and Production \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

### Module content

Advanced and applied training to augment theoretical material presented in core and elective modules. Depending on the students' focus and field of interest he/she can choose per capita topics pertaining to either dairy herd health, beef herd health, feedlot beef production or clinical medicine. Dairy herd health can include in depth reviews on mastitis problems, dairy nutrition, dairy reproduction, lameness, young stock management and associated metabolic conditions. Beef herd health can include veld and pasture management, beef production and nutrition, reproduction and pertinent diseases and conditions. Feedlot beef production can include feedlot nutrition, respiratory anatomy and physiology, respiratory diseases, conditions, diagnosis and treatment, pharmacology, young stock management and production indices. Clinical medicine can include organ, metabolic and deficiency conditions along with the relevant pathophysiology, diagnosis and treatment methods. Advanced training in the chosen topics will be offered firstly in the form of seminar presentation and discussions. Clinical applications will be offered in the form of field visits to the relevant chosen areas and fields of interest as well as clinical supervision within the veterinary hospital clinical rotations. Supervised clinical training comprises a minimum 90 weeks. Integration and application of knowledge of health and production problems and evaluation of health status, production and economic effectiveness of dairy and or beef systems will be core.

## Mini-dissertation: Bovine health and production 890 (BHP 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MMedVet Bovine Health and Production \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies



**Period of presentation** Year

**Module content**

Mini-dissertation

**Biometry 120 (BME 120)**

**Qualification** Undergraduate

**Module credits** 16.00

**Programmes**

BSc Biochemistry  
BSc Biological Sciences  
BSc Biotechnology  
BSc Chemistry  
BSc Culinary Science  
BSc Ecology  
BSc Entomology  
BSc Environmental Sciences  
BSc Extended programme - Biological and Agricultural Sciences  
BSc Extended programme - Physical Sciences  
BSc Food Science  
BSc Genetics  
BSc Human Genetics  
BSc Human Physiology  
BSc Human Physiology, Genetics and Psychology  
BSc Information and Knowledge Systems  
BSc Medical Sciences  
BSc Microbiology  
BSc Nutrition  
BSc Plant Science  
BSc Zoology  
BScAgric Animal Science  
BScAgric Animal and Pasture Science  
BScAgric Applied Plant and Soil Sciences  
BScAgric Plant Pathology  
BVSc

**Service modules**

Faculty of Engineering, Built Environment and Information Technology  
Faculty of Natural and Agricultural Sciences  
Faculty of Veterinary Science

**Prerequisites**

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

**Contact time**

1 practical per week, 4 lectures per week

**Language of tuition**

Separate classes for Afrikaans and English

**Academic organisation**

Statistics

**Period of presentation**

Semester 2

## Module content

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

## Economic evaluation of disease control intervention 872 (CDS 872)

**Qualification** Postgraduate

**Module credits** 5.00

**Programmes** MPH

**Service modules** Faculty of Veterinary Science

**Prerequisites** No prerequisites.

**Contact time** 40 discussion classes per week

**Language of tuition** Module is presented in English

**Academic organisation** School of Health Syst & Public

**Period of presentation** Year

## Module content

Students learn when and how to perform economic analyses.

## Surgery: Small animals 703 (CHV 703)

**Qualification** Postgraduate

**Module credits** 33.00

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year



## Module content

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

### Surgery: Horses 704 (CHV 704)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	33.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

## Module content

Advanced theoretical study of equine surgery.

### Surgery: Small animals 705 (CHV 705)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	33.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

## Module content

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

### Surgery 800 (CHV 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	400.00
<b>Language of tuition</b>	Module is presented in English



**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

**Module content**

Advanced theoretical, practical and experiential module in equine surgery.

### Surgery 803 (CHV 803)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Small Animal Surgery \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

**Module content**

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

### Surgery 804 (CHV 804)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Equine Surgery \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

**Module content**

Advanced theoretical, practical and experiential module in equine surgery.

### Mini-dissertation: Equine surgery 890 (CHV 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MMedVet Equine Surgery \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

### Mini-dissertation: Small animal surgery 892 (CHV 892)

**Qualification** Postgraduate



<b>Module credits</b>	90.00
<b>Programmes</b>	MMedVet Small Animal Surgery (Coursework)
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

### Mini-dissertation: Equine surgery 894 (CHV 894)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

### Information literacy 121 (CIL 121)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	4.00
<b>Service modules</b>	Faculty of Education Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Veterinary Science
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Separate classes for Afrikaans and English
<b>Academic organisation</b>	School of Information Technolo
<b>Period of presentation</b>	Semester 1 and Semester 2

#### Module content

\*No exemption examination

Why computers matter to you? Networking. Information resources (including the Department of Library Services). Quality of information. Ethics, plagiarism and copy right. Searching the Internet. Information-seeking strategies. Location and access. Specific search environments (including all electronic databases and journals in the Department of Library Services applicable to the relevant faculties). Referencing techniques. Use, synthesis and evaluation of information. New trends. Content specific to the University of Pretoria.

### Clinical pathology 410 (CLP 410)

<b>Qualification</b>	Undergraduate
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<b>Module credits</b>	7.00
<b>Programmes</b>	BVSc
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	3 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Semester 1

### Module content

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

### General chemistry 117 (CMY 117)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	16.00



BDietetics  
BEd Senior Phase and Further Education and Training Teaching  
BSc Biochemistry  
BSc Biological Sciences  
BSc Biotechnology  
BSc Chemistry  
BSc Computer Science  
BSc Culinary Science  
BSc Ecology  
BSc Engineering and Environmental Geology  
BSc Entomology  
BSc Environmental Sciences  
BSc Food Science  
BSc Genetics  
BSc Geography  
BSc Geology  
BSc Human Genetics  
BSc Human Physiology  
BSc Human Physiology, Genetics and Psychology  
BSc Medical Sciences  
BSc Meteorology  
BSc Microbiology  
BSc Nutrition  
BSc Physics  
BSc Plant Science  
BSc Zoology  
BScAgric Agricultural Economics and Agribusiness Management  
BScAgric Animal Science  
BScAgric Animal and Pasture Science  
BScAgric Applied Plant and Soil Sciences  
BScAgric Plant Pathology

## Programmes

<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Health Sciences Faculty of Veterinary Science
<b>Prerequisites</b>	Final Grade 12 marks of at least 60% for Mathematics and 60% for Physical Sciences.
<b>Contact time</b>	1 practical per week, 4 lectures per week
<b>Language of tuition</b>	Separate classes for Afrikaans and English
<b>Academic organisation</b>	Chemistry
<b>Period of presentation</b>	Semester 1



## Module content

General introduction to inorganic, analytical and physical chemistry. Atomic structure and periodicity. Molecular structure and chemical bonding using the VSEOR model. Nomenclature of inorganic ions and compounds. Classification of reactions: precipitation, acid-base, redox reactions and gas-forming reactions. Mole concept and stoichiometric calculations concerning chemical formulas and chemical reactions. Principles of reactivity: energy and chemical reactions. Physical behaviour gases, liquids, solids and solutions and the role of intermolecular forces. Rate of reactions: Introduction to chemical kinetics.

## General chemistry 127 (CMY 127)

**Qualification** Undergraduate

**Module credits** 16.00

## Programmes

BDietetics  
BEd Senior Phase and Further Education and Training Teaching  
BSc Biochemistry  
BSc Biological Sciences  
BSc Biotechnology  
BSc Chemistry  
BSc Computer Science  
BSc Culinary Science  
BSc Ecology  
BSc Engineering and Environmental Geology  
BSc Entomology  
BSc Environmental Sciences  
BSc Extended programme - Biological and Agricultural Sciences  
BSc Extended programme - Physical Sciences  
BSc Food Science  
BSc Genetics  
BSc Geography  
BSc Geology  
BSc Human Genetics  
BSc Human Physiology  
BSc Human Physiology, Genetics and Psychology  
BSc Medical Sciences  
BSc Meteorology  
BSc Microbiology  
BSc Nutrition  
BSc Physics  
BSc Plant Science  
BSc Zoology  
BScAgric Agricultural Economics and Agribusiness Management  
BScAgric Animal Science  
BScAgric Animal and Pasture Science  
BScAgric Applied Plant and Soil Sciences  
BScAgric Plant Pathology

## Service modules

Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Health Sciences  
Faculty of Veterinary Science

**Prerequisites** Natural and Agricultural Sciences students: CMY 117 GS or CMY 154 GS Health Sciences students: none

**Contact time** 1 practical per week, 4 lectures per week

**Language of tuition** Separate classes for Afrikaans and English

**Academic organisation** Chemistry

**Period of presentation** Semester 2

### Module content

Theory: General physical-analytical chemistry: Chemical equilibrium, acids and bases, buffers, solubility equilibrium, entropy and free energy, electrochemistry. Organic chemistry: Structure (bonding), nomenclature, isomerism, introductory stereochemistry, introduction to chemical reactions and chemical properties of organic compounds and biological compounds, i.e. carbohydrates and aminoacids. Practical: Molecular structure (model building), synthesis and properties of simple organic compounds.

## Chemistry 151 (CMY 151)

**Qualification** Undergraduate

**Module credits** 16.00

**Programmes** [BVSc](#)

**Service modules** Faculty of Health Sciences

**Prerequisites** Refer to Regulation 1.2

**Contact time** 4 lectures per week, 1 practical per week

**Language of tuition** Separate classes for Afrikaans and English

**Academic organisation** Chemistry

**Period of presentation** Semester 1

### Module content

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

## Surgical nursing 200 (CVP 200)

**Qualification** Undergraduate

**Module credits** 38.00

**Programmes** [University Diploma Veterinary Nursing](#)

**Prerequisites** No prerequisites.

**Contact time** Semester 1: 6 lectures per week over 14 weeks, Sem2: 5 clinical weeks of 40 hours per semester, Sem1:1 clinical week of 40 hours per semester

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

#### 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.

### Diagnostic imaging 400 (DIM 400)

**Qualification** Undergraduate

**Module credits** 17.00

**Programmes** BVSc

**Prerequisites** No prerequisites.

**Contact time** 9 practicals per year, 3 lectures per week over 14 weeks, 2 lectures per week over 14 weeks

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

#### Module content

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

### Radiology: Dogs and cats 781 (DIM 781)

**Qualification** Postgraduate

**Module credits** 39.00

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

## Module content

Advanced study of radiology of dogs and cats.

The module extends over a period of one year. Approximately 18 lectures/group discussions are presented fortnightly on Wednesday mornings. Training is done mainly by means of practical interpretation of radiographic images and the presentation of 2 case reports.

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

The module is normally only presented in alternate years.

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

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	30.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

## Module content

Advanced study in non-radiological diagnostic imaging of dogs and cats.

The module extends over a period of about 8 months. Approximately 12 lectures/group discussions are presented fortnightly on Wednesday mornings. Approximately 76% is allocated to diagnostic ultrasound; 8% to MRI, CT and Scintigraphy each respectively. Training is done mainly by means of interactive lectures and discussions and practical interpretation of a variety of images and the presentation of two case reports.

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

The module is normally only presented in alternate years.

## Radiology: Horses 783 (DIM 783)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	33.00
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1 lecture per week, 1 discussion class per week, 1 seminar per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

## Module content

Advanced study of radiology of horses.

The module extends over a period of one year. Approximately 16 lectures/group discussions are presented fortnightly on Wednesday mornings. Training is done mainly by means of practical interpretation of radiographic images and the presentation of two case reports.

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

The module is normally only presented in alternate years.

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

**Qualification** Postgraduate

**Module credits** 33.00

**Prerequisites** No prerequisites.

**Contact time** 1 seminar per week, 1 practical per week

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

## Module content

Advanced study in non-radiological diagnostic imaging of horses.

The module extends over a period of about 9 months. Approximately 13 lectures/group discussions are presented fortnightly on Wednesday mornings. Approximately 80% is allocated to diagnostic ultrasound; 5% to MRI, 5% to CT and 10% to Scintigraphy. Training is done mainly by means of interactive lectures and discussions and practical interpretation of a variety of images and the presentation of two case reports.

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

The module is normally only presented in alternate years.

## Diagnostic imaging 870 (DIM 870)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Diagnostic Imaging \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

## 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.



### Mini-dissertation: Diagnostic imaging 890 (DIM 890)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	MMedVet Diagnostic Imaging (Coursework)
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

### Diagnostic pathology 400 (DPT 400)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	16.00
<b>Programmes</b>	BVSc
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1 practical per week, 2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

#### Module content

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

### Diagnostic pathology 510 (DPT 510)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	9.00
<b>Programmes</b>	BVSc
<b>Contact time</b>	2 lectures per week, 1 practical per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Semester 1

#### Module content

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

### Applied equine clinical studies 650 (ECS 650)

<b>Qualification</b>	Undergraduate
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<b>Module credits</b>	42.00
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	Yes, 9.9 practicals per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

#### Module content

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

### Basis in environmental health 870 (EHM 870)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	5.00
<b>Service modules</b>	Faculty of Veterinary Science
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1 lecture per week, 1 discussion class per week, 1 other contact session per week, 1 practical per week, 1 seminar per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	School of Health Syst & Public
<b>Period of presentation</b>	Year

### Health risk assessment 871 (EHM 871)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	10.00
<b>Programmes</b>	MPH MSc Clinical Epidemiology MSc Epidemiology MSc Public Health
<b>Service modules</b>	Faculty of Veterinary Science
<b>Prerequisites</b>	EOH 871
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	School of Health Syst & Public
<b>Period of presentation</b>	Year

### Academic literacy (1) 110 (EOT 110)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	6.00

<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology Faculty of Economic and Management Sciences Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science
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<b>Prerequisites</b>	No prerequisites.
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<b>Contact time</b>	1 other contact session per week, 2 lectures per week
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<b>Language of tuition</b>	Separate classes for Afrikaans and English
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<b>Academic organisation</b>	Unit for Academic Literacy
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<b>Period of presentation</b>	Semester 1
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### Module content

An introduction to academic literacy that considers various learning styles and strategies, and provides an initial exploration of the characteristics of academic language. The module focuses initially on academic listening and speaking. Practice in collecting information for academic tasks, as well as in the processing of academic information. In addition, the module has a focus on the enhancement of academic vocabulary, and some initial and elementary academic writing is attempted.

## Academic literacy (2) 120 (EOT 120)

<b>Qualification</b>	Undergraduate
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<b>Module credits</b>	6.00
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<b>Service modules</b>	Faculty of Engineering, Built Environment and Information Technology Faculty of Economic and Management Sciences Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science
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<b>Prerequisites</b>	No prerequisites.
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<b>Contact time</b>	2 lectures per week, 1 other contact session per week
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<b>Language of tuition</b>	Separate classes for Afrikaans and English
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<b>Academic organisation</b>	Unit for Academic Literacy
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<b>Period of presentation</b>	Semester 2
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### Module content

While retaining an emphasis on the collection and processing of academic information, this module also provides sustained practice in academic reading. Similarly, we concentrate on building up an academic vocabulary specific to certain fields of study. The final part of the module brings together academic listening, reading and writing. The production of academic information in the form of argumentative writing is the focus here, i.e. we concentrate on producing academic discourse that is rational, coherent, clear and precise.

## Veterinary epidemiology 510 (EPL 510)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	10.00
<b>Programmes</b>	<a href="#">BVSc</a>
<b>Contact time</b>	3 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

### Module content

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

## Basic epidemiology 802 (EPL 802)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	12.00
<b>Programmes</b>	<a href="#">MSc Tropical Animal Health (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

### Module content

Compulsory module.

A web-based introductory module in epidemiology that includes general concepts, quantification of disease prevalence and incidence, interpretation of diagnostic test results, basic sampling designs and basic statistics.

## Advanced epidemiology 803 (EPL 803)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	12.00
<b>Programmes</b>	<a href="#">MSc Tropical Animal Health (Coursework)</a>
<b>Prerequisites</b>	EPL 802
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

### Module content

This module builds on the subjects dealt with in the 'Basic Epidemiology' module. It includes advanced statistical models (generalised linear model, mixed models, survival analysis) and introduces quantitative risk assessment.

## Applied epidemiology 804 (EPL 804)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	9.00
<b>Programmes</b>	MSc Tropical Animal Health (Coursework)
<b>Prerequisites</b>	EPL 803
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 2

### Module content

Skills training

This module is a hands-on theoretical and practical introduction to epidemiological modelling, including simulation modelling. It assumes successful completion of the basic and applied epidemiology modules.

## Basic veterinary epidemiology 851 (EPL 851)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	10.00
<b>Programmes</b>	MSc Veterinary Epidemiology (Coursework) MSc Veterinary Public Health (Coursework)
<b>Prerequisites</b>	A BVSc or equivalent qualification. Non-veterinary graduates will be considered under exceptional circumstances. Recommended: Grade 12 Mathematics.
<b>Contact time</b>	1 other contact session per week, 1 web-based period per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

### Module content

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

## Biostatistics in veterinary science 852 (EPL 852)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00
<b>Programmes</b>	MSc Veterinary Epidemiology (Coursework)
<b>Prerequisites</b>	BVSc or equivalent qualification and Grade 12 Mathematics.
<b>Contact time</b>	2 seminars per week
<b>Language of tuition</b>	Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 1

### Module content

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

## Analytical veterinary epidemiology 853 (EPL 853)

**Qualification** Postgraduate

**Module credits** 20.00

**Programmes** [MSc Veterinary Epidemiology \(Coursework\)](#)

**Prerequisites** EPL 851 and EPL 852

**Contact time** 2 seminars per week

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 2

### Module content

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

## Animal health information management 855 (EPL 855)

**Qualification** Postgraduate

**Module credits** 5.00

**Programmes** [MSc Veterinary Epidemiology \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Contact time** 1 web-based period per week

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 1 or Semester 2

### Module content

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

## Scientific reasoning in veterinary epidemiology 856 (EPL 856)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	5.00
<b>Programmes</b>	<a href="#">MSc Veterinary Epidemiology (Coursework)</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1 web-based period per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

### Module content

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

## Advanced topics in veterinary epidemiology 859 (EPL 859)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	15.00
<b>Programmes</b>	<a href="#">MSc Veterinary Epidemiology (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

### Module content

This module consists of assignments, seminars, discussions, required reading and/or attendance of short courses on various specialised or advanced topics in veterinary epidemiology of interest to the student and relevant to the chosen research project. Activities are decided upon by the student, in consultation with and subject to approval by the supervisor

## Mini-dissertation: Veterinary epidemiology 890 (EPL 890)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MSc Veterinary Epidemiology (Coursework)</a>
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year



## Module content

Mini-dissertation

### Equine medicine and surgery 410 (EQM 410)

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

#### Module content

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

### Pharmacology 120 (FAK 120)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	7.00
<b>Programmes</b>	University Diploma Veterinary Nursing
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	4 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Semester 2

#### 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.

### Pharmacology 800 (FAK 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	270.00
<b>Programmes</b>	MMedVet Pharmacology (Coursework)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

#### Module content

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

### Advanced fundamentals of pharmacology 876 (FAK 876)

**Qualification** Postgraduate

**Module credits** 40.00

**Programmes** [MSc Veterinary Industrial Pharmacology \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

#### 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.

### Clinical pharmacology 877 (FAK 877)

**Qualification** Postgraduate

**Module credits** 30.00

**Prerequisites** No prerequisites.

**Contact time** 1 lecture per week

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

## Module content

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

## Mini-dissertation: Pharmacology 895 (FAK 895)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MMedVet Pharmacology (Coursework)</a>
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

## Physiology 104 (FSL 104)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	22.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	Semester 1: 8 lectures per week over 14 weeks, Semester 2: 3 lectures per week over 14 weeks
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Anatomy and Physiology
<b>Period of presentation</b>	Year

## Module content

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

## Small animal medicine 702 (GEN 702)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	33.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

## Module content

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

### Equine medicine 703 (GEN 703)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	40.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

## Module content

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

### Small animal medicine 707 (GEN 707)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	37.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

## Module content

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

### Small animal behavioural medicine 709 (GEN 709)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	30.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

## Module content

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

## Equine medicine 802 (GEN 802)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	270.00
<b>Programmes</b>	<a href="#">MMedVet Equine Medicine (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

### Module content

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

## Small animal medicine 803 (GEN 803)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	270.00
<b>Programmes</b>	<a href="#">MMedVet Small Animal Medicine (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

### Module content

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

## Mini-dissertation: Equine medicine 892 (GEN 892)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MMedVet Equine Medicine (Coursework)</a>
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

## Mini-dissertation: Small animal medicine 893 (GEN 893)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MMedVet Small Animal Medicine (Coursework)</a>
<b>Prerequisites</b>	VRM 813

<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

### General surgery 320 (GNS 320)

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

#### Module content

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

### General and organ pathology 300 (GOP 300)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	30.00
<b>Programmes</b>	BVSc
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	7 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

#### Module content

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

### Reproduction 800 (GSK 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	270.00
<b>Programmes</b>	MMedVet Reproduction (Coursework)



<b>Contact time</b>	6 ppw
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

#### Module content

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

### Reproductive physiology 801 (GSK 801)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	15.00
<b>Programmes</b>	<a href="#">MSc Veterinary Reproduction (Coursework)</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	30 contact hours per semester
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

#### Module content

This module will provide advanced theoretical study in and critical appraisal of the principles, concepts, current application and potential developments in selected aspects of reproductive physiology of animals with a strong focus on the common domestic species as specified in modules GSK 806 to GSK 809.

### Bovine reproduction 806 (GSK 806)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	25.00
<b>Programmes</b>	<a href="#">MSc Veterinary Reproduction (Coursework)</a>
<b>Prerequisites</b>	GSK 801
<b>Contact time</b>	50 contact hours
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

#### Module content

This module will provide advanced theoretical study in the reproduction of cattle, including the physiology and endocrinology of reproduction; monitoring, aspects of assisting and controlling their reproduction; managing diseases and malfunctions of reproduction and the evaluation of bulls and cows for breeding soundness.



### Small stock reproduction 807 (GSK 807)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	25.00
<b>Programmes</b>	<a href="#">MSc Veterinary Reproduction (Coursework)</a>
<b>Prerequisites</b>	GSK 801
<b>Contact time</b>	50 contact hours
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

#### Module content

This module will provide advanced theoretical study in the reproduction of sheep and goats, including the physiology and endocrinology of reproduction; monitoring, aspects of assisting and controlling their reproduction; managing diseases and malfunctions of reproduction and the evaluation of males, bucks, ewes and nanny goats for breeding soundness.

### Equine reproduction 808 (GSK 808)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	25.00
<b>Programmes</b>	<a href="#">MSc Veterinary Reproduction (Coursework)</a>
<b>Prerequisites</b>	GSK 801
<b>Contact time</b>	50 contact hours
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 2

#### Module content

This module will provide advanced theoretical study in the reproduction of mares and stallions, including the physiology and endocrinology of reproduction; monitoring, aspects of assisting and controlling their reproduction; managing diseases and malfunctions of reproduction and the evaluation of stallions and mares for breeding soundness.

### Small animal reproduction 809 (GSK 809)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	25.00
<b>Programmes</b>	<a href="#">MSc Veterinary Reproduction (Coursework)</a>
<b>Prerequisites</b>	GSK 801
<b>Contact time</b>	50 contact hours



**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 1 or Semester 2

### Module content

This module will provide advanced theoretical study in the reproduction of dogs and cats, including the physiology and endocrinology of reproduction; monitoring, aspects of assisting and controlling their reproduction; managing diseases and malfunctions of reproduction and the evaluation of dogs and bitches for breeding soundness.

## Wildlife reproduction 810 (GSK 810)

**Qualification** Postgraduate

**Module credits** 25.00

**Programmes** [MSc Veterinary Reproduction \(Coursework\)](#)

**Prerequisites** GSK 801

**Contact time** 50 contact hours

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 1 or Semester 2

### Module content

This module will provide advanced theoretical study in the physiology and endocrinology of reproduction and reproductive patterns of wildlife, the monitoring of their reproduction, the development of breeding programmes for them and contraception, as well as diseases and malfunctions of reproduction and the evaluation of males and females for breeding soundness.

## Mini-dissertation 891 (GSK 891)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MMedVet Reproduction \(Coursework\)](#)  
[MSc Veterinary Reproduction \(Coursework\)](#)

**Prerequisites** VRM 813

**Contact time** 10 Seminars over a period of 2 weeks

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

## Module content

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

### Reproductive nursing 120 (GSV 120)

**Qualification** Undergraduate

**Module credits** 5.00

**Programmes** [University Diploma Veterinary Nursing](#)

**Prerequisites** No prerequisites.

**Contact time** 2 lectures per week, 10 Clinical periods

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 2

## Module content

Fundamental reproductive physiology and endocrinology of the male and female domestic animals. The oestrous cycle, monitoring thereof and principles of oestrus control. Artificial insemination of the cow, ewe and bitch. Physiology and endocrinology of pregnancy, pregnancy diagnosis and care of the pre- and post-partum animal and neonate. Normal parturition and care of the animal during parturition and puerperium. Basic obstetrics and reproductive emergencies. Basic principles of collection, examination and storage of semen. Infertility of female and male animals.

### Reproductive nursing 200 (GSV 200)

**Qualification** Undergraduate

**Module credits** 11.00

**Programmes** [University Diploma Veterinary Nursing](#)

**Prerequisites** No prerequisites.

**Contact time** Semester 1 :25 Clinical period per sem

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

## Module content

Clinic management, practical instruction, patient care and nursing procedures in the reproduction clinic.

### Introductory genetics 161 (GTS 161)



**Qualification** Undergraduate

**Module credits** 8.00

BEd Senior Phase and Further Education and Training Teaching  
BSc Biochemistry  
BSc Biological Sciences  
BSc Biotechnology  
BSc Chemistry  
BSc Ecology  
BSc Entomology  
BSc Extended programme - Biological and Agricultural Sciences  
BSc Food Science  
BSc Genetics  
BSc Human Genetics  
BSc Human Physiology  
BSc Human Physiology, Genetics and Psychology  
BSc Information and Knowledge Systems  
BSc Medical Sciences  
BSc Microbiology  
BSc Nutrition  
BSc Plant Science  
BSc Zoology  
BScAgric Agricultural Economics and Agribusiness Management  
BScAgric Animal Science  
BScAgric Animal and Pasture Science  
BScAgric Applied Plant and Soil Sciences  
BScAgric Plant Pathology  
BVSc

**Programmes**

**Service modules**

Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Veterinary Science

**Prerequisites**

MLB 111 GS

**Contact time**

fortnightly practicals, 2 lectures per week

**Language of tuition**

Separate classes for Afrikaans and English

**Academic organisation**

Genetics

**Period of presentation**

Semester 2

**Module content**

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

**General vector-borne diseases 811 (GVD 811)**

**Qualification**

Postgraduate

**Module credits**

9.00

**Programmes** MSc Tropical Animal Health (Coursework)

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 1

#### Module content

The module gives an overview of the most important vectors and vector borne diseases, their importance and insight on the importance of the biology of the vectors on the transmission of the micro-organisms they transmit.

### Project management in health 870 (HCS 870)

**Qualification** Postgraduate

**Module credits** 10.00

**Service modules** Faculty of Veterinary Science

**Prerequisites** HME 870

**Contact time** 1 discussion class per week, 1 practical per week, 1 other contact session per week, 1 lecture per week, 1 seminar per week

**Language of tuition** Module is presented in English

**Academic organisation** School of Health Syst & Public

**Period of presentation** Year

### Introduction to monitoring and evaluation for health managers 870 (HIN 870)

**Qualification** Postgraduate

**Module credits** 10.00

**Service modules** Faculty of Veterinary Science

**Prerequisites** No prerequisites.

**Contact time** 16 lectures per week, 1 practical per week

**Language of tuition** Module is presented in English

**Academic organisation** School of Health Syst & Public

**Period of presentation** Year

#### Module content

This is an introductory module on Monitoring and Evaluation (M&E) designed to provide students with knowledge, attitudes and skills regarding M&E frameworks, health information and data systems and indicators, evaluation designs, development of M&E plans, data collection, processing and use and feedback of M&E results, within the context of health systems strengthening. At the end of the module the student should be able to define M&E concepts in the context of health systems strengthening; describe M&E frameworks; design an M&E plan; understand health information systems and data collection, processing and understand how M&E results can be used for health systems strengthening.



## Histology 800 (HIS 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Anatomy and Physiology
<b>Period of presentation</b>	Year

### Module content

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

## Monitoring and evaluation 873 (HME 873)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	15.00
<b>Service modules</b>	Faculty of Veterinary Science
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week, 1 practical per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	School of Health Syst & Public
<b>Period of presentation</b>	Year

## Introductory veterinary diagnostics 300 (IVD 300)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	24.00
<b>Programmes</b>	BVSc
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	3 lectures per week, 6 practicals per semester
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year



## Module content

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

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

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

## Clinical laboratory diagnostics 800 (KDK 800)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Clinical Laboratory Diagnostics \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

## 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.

## Mini-dissertation: Clinical laboratory diagnostics 890 (KDK 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MMedVet Clinical Laboratory Diagnostics \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

## Small stock herd health 800 (KKS 800)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Small Stock Herd Health \(Coursework\)](#)



<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

#### 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.

### Mini-dissertation: Small stock herd health 890 (KKS 890)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MMedVet Small Stock Herd Health (Coursework)</a>
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

### Clinical pathology 701 (KPA 701)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	32.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

#### Module content

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

### Clinical pathology 702 (KPA 702)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	31.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies



**Period of presentation** Year

**Module content**

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

**Language and study skills 110 (LST 110)**

**Qualification** Undergraduate

**Module credits** 6.00

**Programmes**

BConSci Clothing Retail Management  
BConSci Food Retail Management  
BConSci Hospitality Management  
BSc Actuarial and Financial Mathematics  
BSc Applied Mathematics  
BSc Biochemistry  
BSc Biological Sciences  
BSc Biotechnology  
BSc Chemistry  
BSc Culinary Science  
BSc Ecology  
BSc Engineering and Environmental Geology  
BSc Entomology  
BSc Environmental Sciences  
BSc Food Science  
BSc Genetics  
BSc Geography  
BSc Geoinformatics  
BSc Geology  
BSc Human Genetics  
BSc Human Physiology  
BSc Human Physiology, Genetics and Psychology  
BSc Mathematical Statistics  
BSc Mathematics  
BSc Medical Sciences  
BSc Meteorology  
BSc Microbiology  
BSc Physics  
BSc Plant Science  
BSc Zoology  
BScAgric Agricultural Economics and Agribusiness Management  
BScAgric Animal Science  
BScAgric Animal and Pasture Science  
BScAgric Applied Plant and Soil Sciences  
BScAgric Plant Pathology  
BVSc

**Service modules** Faculty of Natural and Agricultural Sciences  
Faculty of Veterinary Science

**Prerequisites** No prerequisites.



<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Unit for Academic Literacy
<b>Period of presentation</b>	Semester 1

#### Module content

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

### Laboratory technique 120 (LTG 120)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	11.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	6 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Semester 2

#### Module content

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

### Microbiology 111 (MBI 111)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	10.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1 practical per week, 5 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

#### Module content

Introduction to the viral, bacterial and fungal agents that cause diseases in animals and introduction to the most important infectious diseases of domestic animals. Elementary knowledge of immunology, theory and effects of antiseptic techniques, zoonoses and epidemiology. Transmission and prevention of these diseases.



## Medical physics 800 (MFK 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	36.00
<b>Programmes</b>	MMed Radiological Diagnostics
<b>Service modules</b>	Faculty of Veterinary Science
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Physics
<b>Period of presentation</b>	Year

## Molecular and cell biology 111 (MLB 111)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	16.00
<b>Programmes</b>	<a href="#">BChD</a> <a href="#">BDietetics</a> <a href="#">BEd Senior Phase and Further Education and Training Teaching</a> <a href="#">BSc Biochemistry</a> <a href="#">BSc Biological Sciences</a> <a href="#">BSc Biotechnology</a> <a href="#">BSc Chemistry</a> <a href="#">BSc Computer Science</a> <a href="#">BSc Culinary Science</a> <a href="#">BSc Ecology</a> <a href="#">BSc Entomology</a> <a href="#">BSc Environmental Sciences</a> <a href="#">BSc Food Science</a> <a href="#">BSc Genetics</a> <a href="#">BSc Human Genetics</a> <a href="#">BSc Human Physiology</a> <a href="#">BSc Human Physiology, Genetics and Psychology</a> <a href="#">BSc Information and Knowledge Systems</a> <a href="#">BSc Medical Sciences</a> <a href="#">BSc Microbiology</a> <a href="#">BSc Nutrition</a> <a href="#">BSc Plant Science</a> <a href="#">BSc Zoology</a> <a href="#">BScAgric Agricultural Economics and Agribusiness Management</a> <a href="#">BScAgric Animal Science</a> <a href="#">BScAgric Animal and Pasture Science</a> <a href="#">BScAgric Applied Plant and Soil Sciences</a> <a href="#">BScAgric Plant Pathology</a> <a href="#">BVSc</a> <a href="#">MBChB</a>



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

#### Module content

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

### Medical terminology 180 (MTL 180)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	12.00

#### Programmes

BA Audiology  
BA Speech-Language Pathology  
BChD  
BNurs  
BOccTher  
BRad Diagnostics  
BSportSci  
BVSc  
MBChB

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

#### Module content

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



## Medical nursing 120 (MVP 120)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	6.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	21 lectures, 10 clinical practicals of 40 minutes per semester
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Semester 2

### 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.

## Medical nursing 200 (MVP 200)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	74.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 clinical weeks of 40 hours per week per semester, Semester 1: 6 lectures per week over 14 weeks
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

### Module content

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

## Anaesthesiology 200 (NAR 200)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	16.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	3 lectures per week over 14 weeks, 1 clinical week of 40 hours per year
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies

**Period of presentation** Year

### Module content

The physiology and signs of anaesthesia.

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

## Wildlife management and production 800 (NLB 800)

**Qualification** Postgraduate

**Module credits** 20.00

**Programmes** [MSc Wildlife Health, Ecology and Management \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 1

### Module content

This module covers wildlife management topics of husbandry (wildlife production systems, nutrition, housing and breeding) and wildlife management techniques (fire, fencing, captive management and animal welfare). The module will teach skills and tools of wildlife management.

## Wildlife ecology 810 (NLB 810)

**Qualification** Postgraduate

**Module credits** 20.00

**Programmes** [MSc Wildlife Health, Ecology and Management \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Animal and Wildlife Sciences

**Period of presentation** Semester 1

### Module content

A module on plant ecology, veld management, animal ecology and plant and animal interactions. The students will gain a solid grounding and in-depth understanding of ecological theory and ecological management to maintain and improve ecosystem health. This module will provide a broad view, illustrating a wide variety of different ecosystem examples and will include in-field training in areas around HHWS.

## Ophthalmology 700 (OFM 700)

**Qualification** Postgraduate

**Module credits** 30.00

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

### Module content

A year module consisting of eight theoretical and two practical sessions on ophthalmology of domestic animals (large and small animals).

The module covers the anatomy and physiology of the eye and its adnexa, examination techniques and aids, ocular therapeutics and treatment techniques, surgical and non-surgical conditions of the orbit, eyelids, third eyelid, conjunctiva, lachrymal system, cornea, sclera, anterior chamber, uvea lens, vitreous and retina, and hereditary diseases.

Practical work includes the use of instrumentation and accessories during examination and surgical procedures.

## Ophthalmology 800 (OFM 800)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Ophthalmology \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

### Module content

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

## Mini-dissertation: Ophthalmology 890 (OFM 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MMedVet Ophthalmology \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

## One health: basic concepts 801 (OHB 801)

**Qualification** Postgraduate

**Module credits** 12.00

**Programmes** [MSc Tropical Animal Health \(Coursework\)](#)

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 1

### Module content

This module will introduce students to the philosophy and practice of "One Health", an approach that recognises that the health and well-being of humans, domestic animals, wildlife and the ecosystems in which they live and function and intrinsically connected.

## Parasitology 120 (PAR 120)

**Qualification** Undergraduate

**Module credits** 8.00

**Programmes** [University Diploma Veterinary Nursing](#)

**Prerequisites** No prerequisites.

**Contact time** 3 lectures per week, 6 Practicals

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 2

### 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.

## Pathology 800 (PAT 800)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Pathology \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

### Module content

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

## Pathology: Wildlife 806 (PAT 806)

**Qualification** Postgraduate

**Module credits** 28.00



<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

#### Module content

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

### Necropsy technique and interpretation 807 (PAT 807)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	28.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

#### Module content

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

### Ophthalmological pathology 808 (PAT 808)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

#### Module content

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

### Mechanisms of disease 871 (PAT 871)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

### Module content

Mechanisms of disease (for Medicine students)

## Mini-dissertation: Pathology 890 (PAT 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MMedVet Pathology \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

## Laboratory animal science 800 (PFK 800)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Laboratory Animal Science \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

### 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.

## Mini-dissertation: Laboratory animal science 890 (PFK 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MMedVet Laboratory Animal Science \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year



### Porcine health and production 420 (PHP 420)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	5.00
<b>Programmes</b>	BVSc
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 2

#### Module content

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

### Applied porcine health and production 650 (PHP 650)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	6.00
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1.5 practicals per week, Yes
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

#### Module content

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

### Poultry health and production 800 (PHP 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	270.00
<b>Programmes</b>	MMedVet Poultry Diseases (Coursework)
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

#### Module content

Advanced training in poultry health and production.

### Physics for biology students 131 (PHY 131)

<b>Qualification</b>	Undergraduate
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<b>Module credits</b>	16.00
<b>Programmes</b>	BChD BDietetics BEd Senior Phase and Further Education and Training Teaching BPhysio BSc Biochemistry BSc Biological Sciences BSc Biotechnology BSc Ecology BSc Entomology BSc Food Science BSc Genetics BSc Human Genetics BSc Human Physiology BSc Human Physiology, Genetics and Psychology BSc Medical Sciences BSc Microbiology BSc Nutrition BSc Plant Science BSc Zoology BScAgric Animal Science BScAgric Animal and Pasture Science BScAgric Applied Plant and Soil Sciences BScAgric Plant Pathology BSportSci BVSc MBChB
<b>Service modules</b>	Faculty of Education Faculty of Health Sciences Faculty of Veterinary Science
<b>Prerequisites</b>	Refer to Regulation 1.2: A candidate must have passed Mathematics with at least 50% in the Grade 12 examination
<b>Contact time</b>	1 practical per week, 4 lectures per week, 1 discussion class per week
<b>Language of tuition</b>	Separate classes for Afrikaans and English
<b>Academic organisation</b>	Physics
<b>Period of presentation</b>	Semester 1
<b>Module content</b>	Units, vectors, one dimensional kinematics, dynamics, work, equilibrium, sound, liquids, heat, thermodynamic processes, electric potential and capacitance, direct current and alternating current, optics, modern physics, radio activity.
<b>Poultry health and production 420 (PLY 420)</b>	
<b>Qualification</b>	Undergraduate
<b>Module credits</b>	5.00

**Programmes** [BVSc](#)

**Prerequisites** No prerequisites.

**Contact time** 2 lectures per week

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 2

#### Module content

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

### Applied poultry health and production 650 (PLY 650)

**Qualification** Undergraduate

**Module credits** 7.00

**Prerequisites** No prerequisites.

**Contact time** 1.7 practicals per week, Yes

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

#### Module content

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

### Mini-dissertation: Poultry diseases 890 (PVT 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MMedVet Poultry Diseases \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

### Qualitative research methods 870 (QHR 870)

**Qualification** Postgraduate

**Module credits** 10.00



<b>Programmes</b>	MPH MSc Clinical Epidemiology MSc Epidemiology MSc Public Health
<b>Service modules</b>	Faculty of Veterinary Science
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	School of Health Syst & Public
<b>Period of presentation</b>	Year

### Radiography 200 (RAV 200)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	12.00
<b>Programmes</b>	University Diploma Veterinary Nursing
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1 clinical week of 40 hours per year, 3 lectures per week over 14 weeks
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Year

#### 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.

### Ruminant health 801 (RUM 801)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	40.00
<b>Programmes</b>	MSc Ruminant Health (Coursework)
<b>Prerequisites</b>	A BVSc, a four year BSc in Agriculture (Animal Science), Microbiology, Zoology or an equivalent degree
<b>Contact time</b>	1 seminar per week, 1 discussion class per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

## Module content

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

### Mini-dissertation: Ruminant health 890 (RUM 890)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	MSc Ruminant Health (Coursework)
<b>Prerequisites</b>	A BVSc, a four year BSc in Agriculture (Animal Science), Microbiology, Zoology or an equivalent degree; VRM 813
<b>Contact time</b>	20 Contact sessions
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

## Module content

Mini-dissertation

### Small animal medicine and surgery 400 (SAS 400)

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

## Module content

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



### Communication in health 871 (SCC 871)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	10.00
<b>Service modules</b>	Faculty of Veterinary Science
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1 practical per week, 16 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	School of Health Syst & Public
<b>Period of presentation</b>	Year

### Small stock health and production 510 (SSH 510)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	25.00
<b>Programmes</b>	BVSc
<b>Contact time</b>	6 lectures per week, 1 other contact session per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

#### Module content

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

### Applied small stock health and production 650 (SSH 650)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	12.00
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2.8 practicals per week, Yes
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

#### Module content

Practical instruction on course matter dealt with in SSH 601.

### Small stock health 801 (SSH 801)

<b>Qualification</b>	Postgraduate
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<b>Module credits</b>	40.00
<b>Programmes</b>	<a href="#">MSc Ruminant Health (Coursework)</a>
<b>Contact time</b>	1 discussion class per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

#### Module content

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

### Ticks and tick-borne diseases 814 (TBD 814)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	9.00
<b>Programmes</b>	<a href="#">MSc Tropical Animal Health (Coursework)</a>
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 2

#### Module content

(elective)

This module gives an overview of the economically important ticks and tick-borne parasites of domestic and wild animals, their importance and insight the biology of the vectors on the transmission of the micro-organisms they transmit.

### Selected tick identification 811 (TCK 811)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	9.00
<b>Programmes</b>	<a href="#">MSc Tropical Animal Health (Coursework)</a>
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 2



## Module content

Skills training (elective)

The objective of this module is to provide the basic knowledge of the biology, ecology, life-cycles, and importance of ticks. There will be a practical session to acquire the necessary laboratory skills to identify ticks of companion animals, equids, ruminants and wildlife.

## Toxicology 800 (TOK 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	270.00
<b>Programmes</b>	<a href="#">MMedVet Toxicology (Coursework)</a>
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

## Module content

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

## Mini-dissertation: Toxicology 890 (TOK 890)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MMedVet Toxicology (Coursework)</a>
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

## Veterinary toxicology 300 (TOX 300)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	14.00
<b>Programmes</b>	<a href="#">BVSc</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	3 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year



### Module content

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

## Veterinary toxicology: Organ/systems toxicology 801 (TOX 801)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	30.00
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

### Module content

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

## Theatre practice 120 (TPR 120)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	6.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	21 lectures, 10 clinical practicals of 40 minutes per semester
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Semester 2

### 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.

## Theatre practice 200 (TPR 200)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	12.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>



**Prerequisites** No prerequisites.

**Contact time** 3 lectures per week over 14 weeks, 1 clinical week of 40 hours per year

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Year

#### Module content

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

### Academic orientation 108 (UPO 108)

**Qualification** Undergraduate

**Module credits** 0.00

**Programmes** [BVSc](#)  
[University Diploma Veterinary Nursing](#)

**Language of tuition** Afrikaans and English is used in one class

**Academic organisation** Vet Sc Dean's Office

**Period of presentation** Year

### Veterinary comparative anatomy 200 (VCA 200)

**Qualification** Undergraduate

**Module credits** 38.00

**Programmes** [BVSc](#)

**Prerequisites** No prerequisites.

**Contact time** 9 lectures per week over 14 weeks, Semester 2: 11 lectures per week over 14 weeks

**Language of tuition** Module is presented in English

**Academic organisation** Anatomy and Physiology

**Period of presentation** Year

#### Module content

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

### Veterinary core practice 601 (VCP 601)

**Qualification** Undergraduate

**Module credits** 53.00

**Programmes** [BVSc](#)

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

#### Module content

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

### Veterinary core practice 602 (VCP 602)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	53.00
<b>Programmes</b>	<a href="#">BVSc</a>
<b>Prerequisites</b>	All modules up to and including the 9th semester of the BVSc curriculum.
<b>Contact time</b>	Yes, 40 hours per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

#### Module content

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

### Veterinary core practice 603 (VCP 603)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	54.00
<b>Programmes</b>	<a href="#">BVSc</a>

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

#### Module content

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

### Veterinary microbiology 210 (VEM 210)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	6.00
<b>Programmes</b>	<a href="#">BVSc</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	8 discussion per day over 1 day, 2 lectures per day over 4 days, 2 discussion per day over 1 day
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

#### Module content

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

### Veterinary elective practice 601 (VEP 601)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	28.00
<b>Programmes</b>	<a href="#">BVSc</a>
<b>Contact time</b>	Yes
<b>Language of tuition</b>	Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Semester 2

### Module content

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

## Veterinary elective practice 602 (VEP 602)

**Qualification** Undergraduate

**Module credits** 28.00

**Programmes** [BVSc](#)

**Contact time** Yes

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Semester 1

### Module content

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

## Veterinary elective practice 603 (VEP 603)

**Qualification** Undergraduate

**Module credits** 24.00

**Programmes** [BVSc](#)

**Contact time** Yes

**Language of tuition** Module is presented in English

**Academic organisation** Companion Animal Clin Studies

**Period of presentation** Semester 2

## Module content

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

## Veterinary ethology 110 (VET 110)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	16.00
<b>Programmes</b>	<a href="#">University Diploma Veterinary Nursing</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	3 practicals per week, 6 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Companion Animal Clin Studies
<b>Period of presentation</b>	Semester 1

## 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.

## Veterinary ethology and genetics 200 (VET 200)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	23.00
<b>Programmes</b>	<a href="#">BVSc</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	3 lectures per week, 4 times per year
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

## Module content

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

## Veterinary immunology 220 (VIM 220)

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

### Module content

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

## Veterinary infectious diseases 300 (VIP 300)

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

### Module content

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

## Veterinary industrial pharmacology 800 (VIP 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	50.00

**Programmes** [MSc Veterinary Industrial Pharmacology \(Coursework\)](#)

**Prerequisites** FAK 876

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

#### 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.

### Minidissertation: Veterinary industrial pharmacology 890 (VIP 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MSc Veterinary Industrial Pharmacology \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

### Pig herd health 800 (VKH 800)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Pig Herd Health \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

#### 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.

### Mini-dissertation: Pig herd health 890 (VKH 890)

**Qualification** Postgraduate



<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MMedVet Pig Herd Health (Coursework)</a>
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

### Animal science 210 (VKU 210)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	8.00
<b>Programmes</b>	<a href="#">BVSc</a>
<b>Service modules</b>	Faculty of Veterinary Science
<b>Contact time</b>	2 lectures per week, 1 practical per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Animal and Wildlife Sciences
<b>Period of presentation</b>	Semester 1

#### Module content

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

### Animal science 220 (VKU 220)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	8.00
<b>Programmes</b>	<a href="#">BVSc</a>
<b>Service modules</b>	Faculty of Veterinary Science
<b>Prerequisites</b>	VKU 210 GS of TDH
<b>Contact time</b>	1 practical per week, 2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Animal and Wildlife Sciences
<b>Period of presentation</b>	Quarter 2

## Module content

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

## Animal science 222 (VKU 222)

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

## Module content

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

## Applied molecular biology 816 (VMB 816)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	9.00
<b>Programmes</b>	MSc Tropical Animal Health (Coursework)
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 2

## Module content

Skills training

Theoretical and practical study in the principles and applications of PCR, cloning and DNA sequencing techniques.

## One health 510 (VOH 510)

<b>Qualification</b>	Undergraduate
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<b>Module credits</b>	7.00
<b>Programmes</b>	BVSc
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

#### Module content

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

### Veterinary physiology and histology 200 (VPH 200)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	33.00
<b>Programmes</b>	BVSc
<b>Prerequisites</b>	1st year Physics and Chemistry
<b>Contact time</b>	Semester 1: 8 lectures per week over 14 weeks, Semester 2: 9 lectures per week over 14 weeks
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Anatomy and Physiology
<b>Period of presentation</b>	Year

#### Module content

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

### General veterinary pharmacology 300 (VPH 300)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	14.00
<b>Programmes</b>	BVSc
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	3 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences

**Period of presentation** Year

### Module content

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

## Veterinary public health 510 (VPH 510)

**Qualification** Undergraduate

**Module credits** 14.00

**Programmes** [BVSc](#)

**Contact time** 6 lectures per week

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Semester 1

### Module content

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

## Veterinary public health: Meat hygiene 881 (VPH 881)

**Qualification** Postgraduate

**Module credits** 40.00

**Programmes** [MSc Veterinary Public Health \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Contact time** 10 practicals per week

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

## 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.

### Veterinary public health: Poultry food hygiene 882 (VPH 882)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	40.00
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	10 practicals per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

## 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.

### Veterinary public health: Veterinary milk hygiene 883 (VPH 883)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	40.00
<b>Programmes</b>	<a href="#">MSc Veterinary Public Health (Coursework)</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	10 practicals per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences

**Period of presentation** Year

### 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 or dairy products, practical application of HACCP relating to the specific activities, prevention and control of chemical residues, including veterinary drug residues and appropriate national and international legislation. An understanding of how these relate to applied research relevant to industry or public health (including the ability to select and apply research methods effectively). Ability must be shown to rigorously critique and evaluate current research and participate in scholarly debates in this area of specialisation. Ability must be demonstrated to relate theory to practice and vice versa and to think epistemologically.

## Veterinary public health: Environmental health and biosecurity 884 (VPH 884)

**Qualification** Postgraduate

**Module credits** 40.00

**Prerequisites** No prerequisites.

**Contact time** 10 practicals per week

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

### 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.

## Mini-dissertation: Veterinary public health (VPH 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MSc Veterinary Public Health \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

### Module content

Mini-dissertation

## Veterinary professional life 100 (VPL 100)

**Qualification** Undergraduate

**Module credits** 2.00

**Programmes** BVSc

**Contact time** 2 lectures every fortnight

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Year

### Module content

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

## Veterinary professional life 120 (VPL 120)

**Qualification** Undergraduate

**Module credits** 3.00

**Prerequisites** No prerequisites.

**Contact time** 2 lectures per week

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 2

### Module content

The focus of the five-year programme on veterinary professional life is on professional and competency development. It also aims to contribute to the development of competencies to enable veterinarians to be consummate professionals capable of dealing with the diverse challenges of professional and everyday life. The VPL 120 module specifically aims to expose students to the diversity of opportunities and career paths in the veterinary profession



## Veterinary professional life 121 (VPL 121)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	2.00
<b>Programmes</b>	BVSc
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1

### Module content

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

## Veterinary professional life 200 (VPL 200)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	7.00
<b>Programmes</b>	BVSc
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	9 lectures per week over 4 days
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Year

### Module content

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

## Veterinary professional life 300 (VPL 300)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	10.00
<b>Programmes</b>	BVSc
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1 discussion class per week over 7 weeks, 2 lectures per week over 28 weeks
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases



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<b>Period of presentation</b>	Year
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### Module content

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

## Veterinary professional life 400 (VPL 400)

<b>Qualification</b>	Undergraduate
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<b>Module credits</b>	11.00
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<b>Programmes</b>	BVSc
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<b>Prerequisites</b>	No prerequisites.
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<b>Contact time</b>	2 lectures per week over 28 weeks
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<b>Language of tuition</b>	Module is presented in English
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<b>Academic organisation</b>	Veterinary Tropical Diseases
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<b>Period of presentation</b>	Year
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### Module content

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

## Veterinary business management 510 (VPL 510)

<b>Qualification</b>	Undergraduate
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<b>Module credits</b>	10.00
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<b>Programmes</b>	BVSc
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<b>Contact time</b>	9 other contact sessions, 3 lectures per week
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<b>Language of tuition</b>	Module is presented in English
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<b>Academic organisation</b>	Veterinary Tropical Diseases
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<b>Period of presentation</b>	Semester 1
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## Module content

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

## Research methodology 811 (VRM 811)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1 and Semester 2

## 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.

## Research methodology 812 (VRM 812)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	9.00
<b>Programmes</b>	<a href="#">MSc Tropical Animal Health (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Semester 1 and Semester 2

## 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 enabling preparation and presenting of a research protocol.

## Research methodology 813 (VRM 813)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	0.00

MMedVet Anaesthesiology (Coursework)  
 MMedVet Bovine Health and Production (Coursework)  
 MMedVet Clinical Laboratory Diagnostics (Coursework)  
 MMedVet Diagnostic Imaging (Coursework)  
 MMedVet Equine Medicine (Coursework)  
 MMedVet Equine Surgery (Coursework)  
 MMedVet Laboratory Animal Science (Coursework)  
 MMedVet Ophthalmology (Coursework)  
 MMedVet Pathology (Coursework)  
 MMedVet Pharmacology (Coursework)  
 MMedVet Pig Herd Health (Coursework)  
 MMedVet Poultry Diseases (Coursework)  
 MMedVet Reproduction (Coursework)  
 MMedVet Small Animal Medicine (Coursework)  
 MMedVet Small Animal Surgery (Coursework)  
 MMedVet Small Stock Herd Health (Coursework)  
 MMedVet Toxicology (Coursework)  
 MMedVet Veterinary Public Health (Coursework)  
 MMedVet Wildlife Diseases (Coursework)  
 MSc Ruminant Health (Coursework)  
 MSc Veterinary Science Companion Animal Clinical Studies  
 MSc Veterinary Epidemiology (Coursework)  
 MSc Veterinary Industrial Pharmacology (Coursework)  
 MSc Veterinary Public Health (Coursework)  
 MSc Veterinary Reproduction (Coursework)  
 MSc Veterinary Science Anatomy and Physiology  
 MSc Veterinary Science Paraclinical Sciences  
 MSc Veterinary Science Production Animal Studies  
 MSc Veterinary Science Tropical Diseases  
 MSc Wildlife Health, Ecology and Management (Coursework)

## Programmes

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Semester 1 and Semester 2

## 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 enabling preparation and presenting of a research protocol.

## Veterinary reproduction 400 (VRP 400)

**Qualification** Undergraduate

**Module credits** 17.00

**Programmes** BVSc

**Prerequisites** No prerequisites.

**Contact time** 4 lectures per week, 2 practicals over 10 weeks

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

### Module content

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

## Veterinary parasitology 300 (VTP 300)

**Qualification** Undergraduate

**Module credits** 22.00

**Programmes** [BVSc](#)

**Prerequisites** No prerequisites.

**Contact time** 10 practicals, 4 lectures per week

**Language of tuition** Module is presented in English

**Academic organisation** Veterinary Tropical Diseases

**Period of presentation** Year

### Module content

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

## Veterinary public health 800 (VVD 800)

**Qualification** Postgraduate

**Module credits** 270.00

**Programmes** [MMedVet Veterinary Public Health \(Coursework\)](#)

**Prerequisites** No prerequisites.

**Language of tuition** Module is presented in English

**Academic organisation** Paraclinical Sciences

**Period of presentation** Year

### Module content

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

### Mini-dissertation: Veterinary public health 890 (VVD 890)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	90.00
<b>Programmes</b>	<a href="#">MMedVet Veterinary Public Health (Coursework)</a>
<b>Prerequisites</b>	VRM 813
<b>Contact time</b>	20 contact hours
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

### Mini-dissertation: Veterinary public health 895 (VVD 895)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	100.00
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Paraclinical Sciences
<b>Period of presentation</b>	Year

### Dissertation: Veterinary tropical diseases 801 (VWE 801)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	180.00
<b>Programmes</b>	<a href="#">MSc Veterinary Science Tropical Diseases</a>
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Veterinary Tropical Diseases
<b>Period of presentation</b>	Year

### Dissertation: Anatomy and physiology 802 (VWE 802)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	180.00
<b>Programmes</b>	<a href="#">MSc Veterinary Science Anatomy and Physiology</a>
<b>Prerequisites</b>	VRM 813
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Anatomy and Physiology
<b>Period of presentation</b>	Year



### Dissertation: Companion animal clinical studies 803 (VWE 803)

Qualification	Postgraduate
Module credits	180.00
Programmes	<a href="#">MSc Veterinary Science Companion Animal Clinical Studies</a>
Prerequisites	VRM 813
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

### Dissertation: Paraclinical sciences 804 (VWE 804)

Qualification	Postgraduate
Module credits	180.00
Programmes	<a href="#">MSc Veterinary Science Paraclinical Sciences</a>
Prerequisites	VRM 813
Language of tuition	Module is presented in English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

### Dissertation: Production animal studies 805 (VWE 805)

Qualification	Postgraduate
Module credits	180.00
Programmes	<a href="#">MSc Veterinary Science Production Animal Studies</a>
Prerequisites	VRM 813
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Year

### Thesis: Veterinary tropical diseases 901 (VWE 901)

Qualification	Postgraduate
Module credits	360.00
Programmes	<a href="#">PhD Veterinary Tropical Diseases</a>
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year



### Thesis: Anatomy and physiology 902 (VWE 902)

Qualification	Postgraduate
Module credits	360.00
Programmes	<a href="#">PhD Anatomy and Physiology</a>
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

### Thesis: Companion animal clinical sciences 903 (VWE 903)

Qualification	Postgraduate
Module credits	360.00
Programmes	<a href="#">PhD Companion Animal Clinical Studies</a>
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

### Thesis: Paraclinical sciences 904 (VWE 904)

Qualification	Postgraduate
Module credits	360.00
Programmes	<a href="#">PhD Paraclinical Sciences</a>
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

### Thesis: Production animal studies 905 (VWE 905)

Qualification	Postgraduate
Module credits	360.00
Programmes	<a href="#">PhD Production Animal Studies</a>
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Academic organisation	Production Animal Studies
Period of presentation	Year

## Basic principles of pasture science 253 (WDE 253)

<b>Qualification</b>	Undergraduate
<b>Module credits</b>	18.00
<b>Service modules</b>	Faculty of Veterinary Science
<b>Prerequisites</b>	No prerequisites.
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Plant Production and Soil Sc
<b>Period of presentation</b>	Semester 1

### Module content

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

## Veterinary wildlife studies 800 (WLS 800)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	270.00
<b>Programmes</b>	<a href="#">MMedVet Wildlife Diseases (Coursework)</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	1 discussion class per week, 5 practicals per week, 1 seminar per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Year

### 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.

## Wildlife health advanced 810 (WLS 810)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	20.00
<b>Programmes</b>	<a href="#">MSc Wildlife Health, Ecology and Management (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

### Module content

This in depth module covers wildlife diseases within the fields of identification, pathology, diagnostics and prevention. It also will cover epidemiology including geographical information systems, and an introduction to certain statistical methods commonly used in veterinary science, and will provide the basis for further studies and research involving these techniques. "One Health" philosophy and practices with a focus on community impacts of wildlife management practices will also be covered. It provides the student with good insight into the important infectious, non-infectious and parasitic diseases.

## Transfrontier parks and conservation 811 (WLS 811)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	15.00
<b>Programmes</b>	<a href="#">MSc Wildlife Health, Ecology and Management (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

### Module content

Community engagement issues will be covered including community based natural resource management, community research and feedback and human wildlife conflict. Conservation (principles, animal protection methods, forensics and illegal wildlife trade), economics (basic economics, trade, wildlife income systems, marketing and funding), human resources, strategy, leadership and entrepreneurship will also be covered. The students will be exposed to a broad overview and detailed case-studies relevant to areas transfrontier conservation areas in sub-Saharan Africa.

## Wildlife health introduction 812 (WLS 812)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	15.00
<b>Programmes</b>	<a href="#">MSc Wildlife Health, Ecology and Management (Coursework)</a>
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Production Animal Studies
<b>Period of presentation</b>	Semester 1

### Module content

This elective module is an introduction to wildlife diseases for students that have not done a veterinary degree. It provides students with an understanding of different disease groups, their life cycles, their pathogenesis, how they are identified and legislation relevant to disease control. It also covers Primary animal health care and veterinary public health relevant to wildlife management.

## Wildlife veterinary specific 813 (WLS 813)

<b>Qualification</b>	Postgraduate
<b>Module credits</b>	15.00

**Programmes** [MSc Wildlife Health, Ecology and Management \(Coursework\)](#)

**Prerequisites** BVSc or equivalent

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Semester 1

### Module content

This module will cover veterinary relevant topics to wildlife management and conservation areas such as disease diagnoses, treatment, prevention, immobilisation, tranquilisation and reproductive management as well as veterinary specific legislation. This module is for veterinary practitioners who want to focus their skills and careers in wildlife and conservation practice.

## Mini-dissertation: Wildlife health, ecology and management 890 (WLS 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MSc Wildlife Health, Ecology and Management \(Coursework\)](#)

**Service modules** Faculty of Natural and Agricultural Sciences

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

## Mini-dissertation: Wildlife diseases 890 (WSK 890)

**Qualification** Postgraduate

**Module credits** 90.00

**Programmes** [MMedVet Wildlife Diseases \(Coursework\)](#)

**Prerequisites** VRM 813

**Language of tuition** Module is presented in English

**Academic organisation** Production Animal Studies

**Period of presentation** Year

## Mathematics 134 (WTW 134)

**Qualification** Undergraduate

**Module credits** 16.00



BCom  
BCom Economics  
BCom Statistics  
BEd Senior Phase and Further Education and Training Teaching  
BIT Information Technology  
BSc Biochemistry  
BSc Biological Sciences  
BSc Biotechnology  
BSc Computer Science  
BSc Construction Management  
BSc Culinary Science  
BSc Ecology  
BSc Entomology  
BSc Environmental Sciences  
BSc Food Science  
BSc Genetics  
BSc Geography  
BSc Geoinformatics  
BSc Human Genetics  
BSc Human Physiology  
BSc Human Physiology, Genetics and Psychology  
BSc Information and Knowledge Systems  
BSc Medical Sciences  
BSc Microbiology  
BSc Nutrition  
BSc Plant Science  
BSc Quantity Surveying  
BSc Real Estate  
BSc Zoology  
BScAgric Agricultural Economics and Agribusiness Management  
BScAgric Animal Science  
BScAgric Animal and Pasture Science  
BScAgric Applied Plant and Soil Sciences  
BScAgric Plant Pathology

## Programmes

### Service modules

Faculty of Engineering, Built Environment and Information Technology  
Faculty of Education  
Faculty of Veterinary Science

### Prerequisites

Refer to Regulation 1.2: At least 50% for Mathematics in the Grade 12 examination  
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### Contact time

4 lectures per week, 1 tutorial per week

### Language of tuition

Separate classes for Afrikaans and English

### Academic organisation

Mathematics and Applied Maths

### Period of presentation

Semester 1



## Module content

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

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

## Mathematics 165 (WTW 165)

**Qualification** Undergraduate

**Module credits** 16.00

**Programmes** BVSc

**Prerequisites** At least 50% for Mathematics in the Grade 12 examination and MGW 112# or 08130005

**Contact time** 4 lectures per week, 1 tutorial per week

**Language of tuition** Module is presented in English

**Academic organisation** Mathematics and Applied Maths

**Period of presentation** Semester 2

## Module content

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

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

## Animal diversity 161 (ZEN 161)

**Qualification** Undergraduate

**Module credits** 8.00

## Programmes

BEd Senior Phase and Further Education and Training Teaching  
 BSc Biochemistry  
 BSc Biological Sciences  
 BSc Biotechnology  
 BSc Chemistry  
 BSc Ecology  
 BSc Entomology  
 BSc Environmental Sciences  
 BSc Extended programme - Biological and Agricultural Sciences  
 BSc Food Science  
 BSc Genetics  
 BSc Human Genetics  
 BSc Human Physiology  
 BSc Microbiology  
 BSc Plant Science  
 BSc Zoology  
 BScAgric Agricultural Economics and Agribusiness Management  
 BScAgric Animal Science  
 BScAgric Animal and Pasture Science  
 BScAgric Applied Plant and Soil Sciences  
 BScAgric Plant Pathology  
 BVSc

<b>Service modules</b>	Faculty of Education Faculty of Veterinary Science
<b>Prerequisites</b>	MLB 111 GS or TDH
<b>Contact time</b>	2 lectures per week, fortnightly practicals
<b>Language of tuition</b>	Separate classes for Afrikaans and English
<b>Academic organisation</b>	Zoology and Entomology
<b>Period of presentation</b>	Semester 2

## Module content

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

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.