

# University of Pretoria Yearbook 2016

# 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 servicerendering 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.
- In order to register for the University degree or diploma NSC/IEB/Cambridge candidates must comply with the minimum requirements for degree studies as well as the minimum requirements of the study programme.
- Life Orientation is excluded when calculating the APS.

Minimum requirements for 2016																
Achievement level																
English				Mathematics				Life Sciences				Physical Science				APS
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	APS
4	3	D	D	4	3	D	D	4	3	D	D	4	3	D	D	24

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.



#### **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

## **BVeterinary Science Veterinary Science (08130004)**

**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 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.

- In order to register for the University degree or diploma NSC/IEB/Cambridge candidates must comply with the minimum requirements for degree studies as well as the minimum requirements of the study programme.
- Life Orientation is excluded when calculating the APS.

Minimum requirements for 2016												
Achievement level												
English				Mathen	natics			Physical Science				
NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	NSC/IEB	HIGCSE	AS-Level	A-Level	APS
5	3	С	С	5	3	С	С	5	3	С	С	32

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 (Four-year Programme) – 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 (Four-year Programme).

#### **School-leavers**

A valid National Senior Certificate (NSC) with admission for degree purposes.

- Subject requirements and an Admission Point Score (APS) as indicated. The APS is calculated from the achievement levels obtained in the six 20-credit subjects of the NSC.
- A completed National Benchmark Test (NBT). Basic performance in any component of this test is regarded as unacceptable.
- Completed value-added form.



#### Applicants with tertiary exposure

There is an opportunity for students with previous tertiary experience to also apply for the BVSc study programme. Placement in either the first or second year of the BVSc study programme will depend on, among others, merit and subject choices.

#### International students

A small number of international students may be admitted to the study programme, mainly those from neighbouring Southern African Development Community (SADC) countries. For matriculation exemption requirements and the calculation of the APS, please refer to pages 12 and 13 of this brochure. Equivalency of academic credits will be taken into account. Once applicants have been accepted for this study programme, they will receive a letter of acceptance from the University, which will facilitate their application for a study permit. A valid study permit, obtained in the country of origin, is a prerequisite for registration.

#### **Additional requirements**

Admission will be subject to selection and the availability of places.

Applicants with an APS between 30 and 32 will be considered for access into the BSc (Four-year programme) – Biological and Agricultural Sciences. Selected 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 (Four-year programme). These applicants must achieve a minimum score of 4 in both Mathematics, Physical Science.and English.

#### **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.

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

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

(ii) Admission to the examinations in some modules is subject to specific requirements – consult study guides. The weighting of semester/year marks in the calculation of the final mark shall be 50%.

(iii) A student is required to obtain a subminimum of 40% in the examination as well as a final mark of at least 50% to pass a module. A subminimum of 40% in subdivisions of theoretical and/or practical examinations may be required as stipulated by the Dean in consultation with the head of department concerned, and as set out in the annual study guide. In terms of the General Regulation G.10.4, a semester mark or year mark of at least 50% must be obtained in attendance modules. The stipulations of the General Regulations G.12.1 to G.12.5 also apply.



A student must pass all the modules of the respective previous year of study in order to be promoted to the subsequent year of study, as well as to the clinical rotations. A single further examination will, however, be allowed for students who have only one of the following modules in the new programme outstanding at the end of the relevant academic year, provided the final mark is at least 40%:

- ANV 420 Anaesthesiology
- CLP 410 Clinical pathology
- GNS 320 General surgery
- VEM 210 Veterinary microbiology
- VIM 220 Veterinary immunology

(iv) A student who fails a module or modules in a year of study, has to repeat, subject to the stipulations of the General Regulations G.11.2 (a) to (c) and Regulation V.1(c)(ix), all the modules for that particular year of study, except modules which were passed with a final mark of at least 65%, for which full exemption is granted. Provisional exemption is granted for an examination module passed with a final combined mark of less than 65%. This implies that at least 80% of the practical periods have to be attended and that a year/semester mark of at least 50% has to be obtained through the completion of all scheduled assessments, tests, tasks, etc., in order to obtain exemption from the examination in those modules at the end of the repeat semester/year. Examinations are compulsory in all the modules previously failed, as well as in those modules in which exemption from the examination), he or she will not be allowed to continue their studies in the Faculty [see V.1(c)(x)].

(v) No limit is placed on the number of modules in which supplementary examinations may be done, except in the final year of study. The nature and date of supplementary examinations are determined by the Dean in consultation with the head of department.

(vi) 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.

(vii) Subject to the General Regulation, G.12.4.3, a minimum of 50% is required to pass a supplementary examination. The semester or year mark is not taken into account.

(viii) In addition to the stipulations of the General Regulation, G.3.2(b), a student will not be allowed to repeat the same year of study more than once.

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

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

## 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: 146

#### **Fundamental modules**

Academic information management 101 (AIM 101) - Credits: 6.00 Language and study skills 110 (LST 110) - Credits: 6.00 Academic orientation 108 (UPO 108) - Credits: 0.00

#### **Core modules**

Biometry 120 (BME 120) - Credits: 16.00 General chemistry 117 (CMY 117) - Credits: 16.00 General chemistry 127 (CMY 127) - 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 Mathematics 134 (WTW 134) - Credits: 16.00 Animal diversity 161 (ZEN 161) - Credits: 8.00 Veterinary professional life 120 (VPL 120) - Credits: 3.00

## **Curriculum: Year 2**

Minimum credits: 149

#### **Core modules**

Veterinary ethology and genetics 200 (VET 200) - Credits: 23.00 Animal science 210 (VKU 210) - Credits: 12.00 Animal science 220 (VKU 220) - Credits: 12.00 Animal science 222 (VKU 222) - Credits: 6.00 Basic principles of pasture science 253 (WDE 253) - Credits: 18.00 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

## **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: 28.00 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: 7.50 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 420 (PLY 420) - Credits: 5.00

#### **Curriculum: Year 5**

Minimum credits: 380

#### **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: 40.00

#### **Curriculum: Final year**

Minimum credits: 280

#### **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: 40.00 Veterinary elective practice 603 (VEP 603) - Credits: 40.00



## Honours

## **BVeterinary Science (Hons) Veterinary Science (08240001)**

Duration of study 2 years

#### **Programme information**

The honours degree provides the student with a broad scientific background in the theoretical aspects of the modules that are required for eventual MMedVet degree studies. However, the conferment of the honours degree is not subject to future registration for master's degree studies.

Students are required to confirm whether a module will be presented in any particular year as not all the postgraduate modules are necessarily offered every 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.

Also consult the General Regulations G.16 to G.29.

#### **Admission requirements**

A candidate must have a BVSc or an equivalent degree. Entrance examinations for individual modules may be required.

In addition to the stipulations of the regulations, the head of department has the prerogative to require an entrance test prior to registration for honours degree studies. Candidates may also be required to pass an English proficiency test (TOEFL) at an acceptable level.

#### **Additional requirements**

#### **Other programme-specific information**

(i) The selected modules are approved by the relevant head of department.

(ii) Where the honours degree precedes a master's degree, the modules chosen for the honours degree programme must support the particular field of study for the prospective master's degree programme. The selection of modules is therefore approved by the relevant head of the department.

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

In order to obtain the degree a student has to successfully complete all relevant modules. A student may not register and sit for an examination more than twice in the same module.

A minimum examination mark of 50% is required in each of the modules where a semester or year mark is not required. However, where a semester or year mark is required, the latter should contribute at least 30% to the final mark. A subminimum of 40% is required in the examination and a final mark of at least 50% to pass the module. Instructions regarding requirements for semester, year or examination marks are published in the study guides, for the specific attention of students.



#### Pass with distinction

To obtain the degree with distinction, a minimum of 60% is required in each module, as well as a cumulative average of at least 75% for all the modules.

#### **Curriculum: Year 1**

Minimum credits: 60

#### **Core modules**

Radiology: Dogs and cats 781 (DIM 781) - Credits: 39.00 Non-radiological diagnostic imaging of dogs and cats 782 (DIM 782) - Credits: 30.00 Radiology: Horses 783 (DIM 783) - Credits: 33.00 Non-radiological diagnostic imaging of horses 784 (DIM 784) - Credits: 33.00 Small animal medicine 702 (GEN 702) - Credits: 33.00 Equine medicine 703 (GEN 703) - Credits: 40.00 Small animal medicine 707 (GEN 707) - Credits: 37.00 Small animal behavioural medicine 709 (GEN 709) - Credits: 30.00 Clinical pathology 701 (KPA 701) - Credits: 32.00 Clinical pathology 702 (KPA 702) - Credits: 31.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Anatomy 703 (ANG 703) - Credits: 32.00 Anatomy 705 (ANG 705) - Credits: 32.00 Anatomy 774 (ANG 774) - Credits: 30.00 Anaesthesiology 771 (ANV 771) - Credits: 30.00 Surgery: Small animals 703 (CHV 703) - Credits: 33.00 Surgery: Horses 704 (CHV 704) - Credits: 33.00 Physiology 787 (FSL 787) - Credits: 30.00 Physiology 788 (FSL 788) - Credits: 30.00 Ophthalmology 700 (OFM 700) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 Surgery: Small animals 705 (CHV 705) - Credits: 33.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

#### **Curriculum: Final year**

Minimum credits: 60

#### **Core modules**

Radiology: Dogs and cats 781 (DIM 781) - Credits: 39.00 Non-radiological diagnostic imaging of dogs and cats 782 (DIM 782) - Credits: 30.00 Radiology: Horses 783 (DIM 783) - Credits: 33.00 Non-radiological diagnostic imaging of horses 784 (DIM 784) - Credits: 33.00 Small animal medicine 702 (GEN 702) - Credits: 33.00 Equine medicine 703 (GEN 703) - Credits: 40.00 Small animal medicine 707 (GEN 707) - Credits: 37.00 Small animal behavioural medicine 709 (GEN 709) - Credits: 30.00 Clinical pathology 701 (KPA 701) - Credits: 32.00



Clinical pathology 702 (KPA 702) - Credits: 31.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Anatomy 703 (ANG 703) - Credits: 32.00 Anatomy 705 (ANG 705) - Credits: 32.00 Anatomy 774 (ANG 774) - Credits: 30.00 Anaesthesiology 771 (ANV 771) - Credits: 30.00 Surgery: Small animals 703 (CHV 703) - Credits: 33.00 Surgery: Horses 704 (CHV 704) - Credits: 33.00 Physiology 787 (FSL 787) - Credits: 30.00 Physiology 788 (FSL 788) - Credits: 30.00 Ophthalmology 700 (OFM 700) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 Surgery: Small animals 705 (CHV 705) - Credits: 33.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00



## Master's

## MSc Option: Ruminant Health (Coursework) (08251012)

**Duration of study** 3 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 modules as well as a mini-dissertation. It is primarily a web-based modular degree programme. The MSc degree is conferred by virtue of the successful completion of prescribed modules in the curriculum and a mini-dissertation. Coursework: 60%; Mini-dissertation: 40%.

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

#### **Admission requirements**

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

#### **Additional requirements**

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

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

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**

#### Consult the General Regulations.

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

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



#### **Pass with distinction**

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

#### **Curriculum: Year 1**

#### **Fundamental modules**

Small stock health 801 (SSH 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00

#### **Core modules**

Ruminant health 801 (RUM 801) - Credits: 40.00 Mini-dissertation: Ruminant health 890 (RUM 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

## **Curriculum: Final year**



#### **Fundamental modules**

Small stock health 801 (SSH 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00

#### **Core modules**

Ruminant health 801 (RUM 801) - Credits: 40.00 Mini-dissertation: Ruminant health 890 (RUM 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

## MSc Option: Veterinary Epidemiology (Coursework) (08251009)

Duration of study 3 years

#### **Programme information**

This programme if 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 and elective modules as well as a mini-dissertation. It is primarily a webbased modular degree programme.

At the discretion of the HOD and supervisor, a student may be granted exemption from the modules VRM 811 (Veterinary research methodology) and/or EPL 851 (Basic veterinary epidemiology) if equivalent module(s) have successfully been completed. The MSc degree is conferred by virtue of the successful completion of prescribed modules in the curriculum and a mini-dissertation.

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

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

#### **Admission requirements**

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

#### **Additional requirements**

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

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

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

#### **Research information**

Consult the General Regulations.

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

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

#### **Pass with distinction**

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

#### **Curriculum: Year 1**



#### **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 Mini-dissertation: Veterinary epidemiology 890 (EPL 890) - Credits: 120.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

#### **Curriculum: Final year**

#### **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 Mini-dissertation: Veterinary epidemiology 890 (EPL 890) - Credits: 120.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00



Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

## MSc Option: Veterinary Public Health (08251013)

Duration of study 2 years

#### **Programme information**

This programme is offered by the Department of Paraclinical Sciences.

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

The MSc degree is conferred by virtue of the successful completion of prescribed modules in the curriculum and a mini-dissertation. Coursework: 70%; Mini-dissertation: 30%.

#### **Admission requirements**

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

#### **Additional requirements**

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

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

A minimum examination mark of 50% is required to pass each of the modules. Instructions regarding



requirements for semester, year or examination marks are published in the study guides, for the specific attention of candidates.

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

#### **Research information**

Also consult the General Regulations.

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

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

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

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

#### **Pass with distinction**

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

#### **Curriculum: Year 1**

#### **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 Mini-dissertation: Veterinary Public Health (VPH 890) - Credits: 80.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Basis in environmental health 870 (EHM 870) - Credits: 5.00 Health risk assessment 871 (EHM 871) - Credits: 10.00 Project management in health 870 (HCS 870) - Credits: 10.00 Monitoring and evaluation 873 (HME 873) - Credits: 15.00 Qualitative research methods 870 (QHR 870) - Credits: 10.00 Communication in health 871 (SCC 871) - Credits: 10.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00



Animal/Human/Ecosystem Health 801 (AHE 801) - Credits: 30.00 Zoonoses 805 (AHE 805) - Credits: 20.00 Policy, planning and legislation 809 (AHE 809) - Credits: 20.00 Communication and management 810 (AHE 810) - Credits: 20.00

#### **Curriculum: Final year**

#### **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 Mini-dissertation: Veterinary Public Health (VPH 890) - Credits: 80.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Basis in environmental health 870 (EHM 870) - Credits: 5.00 Health risk assessment 871 (EHM 871) - Credits: 10.00 Project management in health 870 (HCS 870) - Credits: 10.00 Monitoring and evaluation 873 (HME 873) - Credits: 15.00 Qualitative research methods 870 (QHR 870) - Credits: 10.00 Communication in health 871 (SCC 871) - Credits: 10.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Animal/Human/Ecosystem Health 801 (AHE 801) - Credits: 30.00 Zoonoses 805 (AHE 805) - Credits: 20.00 Policy, planning and legislation 809 (AHE 809) - Credits: 20.00 Communication and management 810 (AHE 810) - Credits: 20.00

## MSc Option: Veterinary Reproduction (Coursework) (08251010)

Duration of study 1 year

#### **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.

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



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

#### **Admission requirements**

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

#### **Additional requirements**

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

#### **Other programme-specific information**

All modules that were not registered for or that have not been completed during the first year of study must be completed during the second year of study.

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

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

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

#### **Research information**

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

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

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

#### **Curriculum: Year 1**

#### **Core modules**

Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Mini-dissertation 891 (GSK 891) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

#### **Core modules**

Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Mini-dissertation 891 (GSK 891) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

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

Duration of study 1 year

#### **Programme information**

This degree primarily aims to address an international audience involved in tropical livestock and wildlife health, management and production in support of rural development, also wishing to integrate the impact of the diseases and control activities on the local ecosystems in order to increase knowledge and effectiveness of control strategies. The degree is more geared towards veterinarians and professionals with a background in Animal Health and Zoology, but it may also be of interest to medical professionals who want to broaden their scope. The modular programme is structured in such a way that a learner can, by selecting the appropriate elective and skills modules, achieve a qualification that will support various career paths, including microbiology or parasitology, veterinary field services, or general veterinary practice, to name a few.

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.

#### **Admission requirements**

Subject to the stipulations of General Regulations of UP, a BVSc, a four-year BSc in Animal Science, Biological Science, or an equivalent degree is required. 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.

#### **Additional requirements**

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

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

The MSc degree is conferred by virtue of the successful completion of coursework and a mini-dissertation within the prescribed time period. The final mark will be calculated as follows:

Coursework: 50%; Mini-dissertation: 50%. The latter 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 Dissertation mark. The dissertation will also be examined by one external examiner as stipulated by the UP regulations; a mark will be given which will constitute constitute 90% of the final mini-dissertation mark.

If a student fails a module, he/she will have to repeat the module the following year. In the case of the skillsbased modules, if a student fails either the online (theory) or the practical component of a module, he/she will have to repeat the module (online and practical component) the following year. Any module can only be repeated twice; if such a module is failed in both instances, the degree will not be conferred.

#### **Research information**

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 dissertation to fulfill 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/Institute guidelines. (Consult UP General Regulations)

Before or together with the dissertation, a student must submit at least one draft article in the correct format 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 dissertation and must be acceptable to the supervisor and meet subsidy requirements. (Also consult UP General Regulations)

A dissertation may not be conditionally accepted: it is either accepted (> 50%) or rejected (< 50%). In the event of a dissertation being rejected, a candidate may submit an amended version or another dissertation within two years and will bear the full cost of the examination.

#### **Pass with distinction**

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

#### **Curriculum: Year 1**

#### **Core modules**

One health: basic concepts 801 (OHB 801) - Credits: 12.00 Basic epidemiology 802 (EPL 802) - Credits: 12.00 Mini-dissertation 895 (AHE 895) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Applied veterinary helminthology 811 (AVH 811) - Credits: 9.00 Applied veterinary virology 811 (AVV 811) - Credits: 9.00 Ticks and tick-borne diseases 814 (TBD 814) - 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 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 Applied epidemiology 804 (EPL 804) - Credits: 9.00

## **Curriculum: Final year**

#### **Core modules**

One health: basic concepts 801 (OHB 801) - Credits: 12.00 Basic epidemiology 802 (EPL 802) - Credits: 12.00 Mini-dissertation 895 (AHE 895) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Applied veterinary helminthology 811 (AVH 811) - Credits: 9.00 Applied veterinary virology 811 (AVV 811) - Credits: 9.00 Ticks and tick-borne diseases 814 (TBD 814) - 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 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 Applied epidemiology 804 (EPL 804) - Credits: 9.00

## MSc Veterinary Industrial Pharmacology (Coursework) (08251006)

Duration of study 1 year

#### **Programme information**

The MSc (Veterinary Industrial Pharmacology) is a coursework-based degree programme with a component of applied research (mini-dissertation). The degree is conferred by virtue of the successful completion of prescribed modules in the curriculum.

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.

Also consult the General Regulations.

This programme if offered by the Department of Paraclinical Sciences.

#### **Admission requirements**

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

#### **Additional requirements**

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

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



#### **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.

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

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

#### **Research information**

Also consult the General Regulations.

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

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

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

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

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

#### **Pass with distinction**

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

#### **Curriculum: Year 1**

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



Minidissertation: Veterinary industrial pharmacology 890 (VIP 890) - Credits: 100.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

#### **Core modules**

Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Minidissertation: Veterinary industrial pharmacology 890 (VIP 890) - Credits: 100.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Research methodology 812 (VRM 812) - Credits: 9.00

## MSc Veterinary Science (08250901)

Duration of study 2 years

#### **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. (Also consult the UP General Regulations.)

#### **Admission requirements**

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BscAgric, BVSc or equivalent degree is required.

#### **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).

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

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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.

#### **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.

#### **Pass with distinction**

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

#### **Curriculum: Year 1**

#### **Core modules**

Dissertation: Veterinary tropical diseases 801 (VWE 801) - Credits: 240.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

Core modules Dissertation: Veterinary tropical diseases 801 (VWE 801) - Credits: 240.00 Research methodology 812 (VRM 812) - Credits: 9.00

## MSc Veterinary Science (08251002)

Duration of study 2 years

#### **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. (Also consult the UP General Regulations.)

#### **Admission requirements**

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BscAgric, BVSc or equivalent degree is required.

#### **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).

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

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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.

#### **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.

#### **Pass with distinction**

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

#### **Curriculum: Year 1**

#### **Core modules**

Dissertation: Anatomy and physiology 802 (VWE 802) - Credits: 240.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

**Core modules** Dissertation: Anatomy and physiology 802 (VWE 802) - Credits: 240.00 Research methodology 812 (VRM 812) - Credits: 9.00

## MSc Veterinary Science (08251003)

Duration of study

2 years



#### **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. (Also consult the UP General Regulations.)

#### **Admission requirements**

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BscAgric, BVSc or equivalent degree is required.

#### **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).

#### **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.

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

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



#### **Curriculum: Year 1**

#### **Core modules**

Dissertation: Companion animal clinical studies 803 (VWE 803) - Credits: 240.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

#### **Core modules**

Dissertation: Companion animal clinical studies 803 (VWE 803) - Credits: 240.00 Research methodology 812 (VRM 812) - Credits: 9.00

## MSc Veterinary Science (08251004)

Duration of study 2 years

#### **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. (Also consult the UP General Regulations.)

#### **Admission requirements**

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BscAgric, BVSc or equivalent degree is required.

#### **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).

#### **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.

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

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

#### **Curriculum: Year 1**

#### **Core modules**

Dissertation: Paraclinical sciences 804 (VWE 804) - Credits: 240.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

**Core modules** Dissertation: Paraclinical sciences 804 (VWE 804) - Credits: 240.00 Research methodology 812 (VRM 812) - Credits: 9.00

## MSc Veterinary Science (08251005)

Duration of study 2 years

#### **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. (Also consult the UP General Regulations.)

#### **Admission requirements**

Subject to the stipulations of the applicable General Regulations, a BScHons, a four-year BscAgric, BVSc or equivalent degree is required.

#### **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).

#### **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.

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

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

#### **Curriculum: Year 1**

**Core modules** Dissertation: Production animal studies 805 (VWE 805) - Credits: 180.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

**Core modules** Dissertation: Production animal studies 805 (VWE 805) - Credits: 180.00 Research methodology 812 (VRM 812) - Credits: 9.00

## **MVeterinary Medicine Anaesthesiology (Coursework) (08250131)**

Duration of study 2 years

#### **Programme information**

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

#### **Attendance requirements**

i. Unless stipulated otherwise, the Dean must be satisfied that the candidates will have sufficient access to



appropriate facilities and, where necessary, supervision by an appropriate person to complete the work required for the degree at a satisfactory level.

- ii. Attendance requirements are determined in each individual case by the head of department concerned.
- iii. Candidates will be required to keep a logbook or similar record of experiential training which is to be signed by the supervisor every 6 months. The logbook or other suitable record is to be made available for auditing when the specialist module is monitored by the South African Veterinary Council.

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

## **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
- FSL 787 Physiology
- FSL 788 Physiology
- ANV 771 Anaesthesiology



# **Examinations and pass requirements**

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

# **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Anaesthesiology 800 (ANV 800) - Credits: 400.00 Mini-dissertation: Anaesthesiology 890 (ANV 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

## **Curriculum: Final year**

#### **Core modules**



Anaesthesiology 800 (ANV 800) - Credits: 400.00 Mini-dissertation: Anaesthesiology 890 (ANV 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **MVeterinary Medicine Bovine Medicine (Coursework) (08250052)**

Duration of study 2 years

## **Programme information**

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

## **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

# **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

Any appropriate elective module(s) of at least 14 credits as approved by the HOD.

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

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

## **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Mini-dissertation: Cattle herd health 890 (BKG 890) - Credits: 90.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 Basic veterinary epidemiology 851 (EPL 851) - Credits: 10.00



Bovine health and production 800 (BHP 800) - Credits: 400.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

## **Curriculum: Final year**

#### **Core modules**

Mini-dissertation: Cattle herd health 890 (BKG 890) - Credits: 90.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 Basic veterinary epidemiology 851 (EPL 851) - Credits: 10.00 Bovine health and production 800 (BHP 800) - Credits: 400.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00



Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

# **MVeterinary Medicine Cattle Herd Health (08250231)**

Duration of study 2 years

# **Programme information**

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

#### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

# **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

Any appropriate elective module(s) of at least 10 credits as approved by the HOD.

## **Examinations and pass requirements**

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

## **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Mini-dissertation: Cattle herd health 890 (BKG 890) - Credits: 90.00 Basic veterinary epidemiology 851 (EPL 851) - Credits: 10.00 Biostatistics in veterinary science 852 (EPL 852) - Credits: 20.00 Bovine health and production 800 (BHP 800) - Credits: 400.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00



Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

## **Curriculum: Final year**

#### **Core modules**

Mini-dissertation: Cattle herd health 890 (BKG 890) - Credits: 90.00 Basic veterinary epidemiology 851 (EPL 851) - Credits: 10.00 Biostatistics in veterinary science 852 (EPL 852) - Credits: 20.00 Bovine health and production 800 (BHP 800) - Credits: 400.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

# **MVeterinary Medicine Clinical Laboratory Diagnostics (08250191)**

Duration of study

2 years



# **Programme information**

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

#### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

## **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**

#### Prerequisites for this specific programme:

BVScHons with the following modules:

KPA 701 Clinical pathology

KPA 702 Clinical pathology



and two of the following:

- FSL 787 Physiology
- FSL 788 Physiology

PAT 871 Mechanisms of disease

GEN 707 Small animal medicine

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

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

## **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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



#### **Core modules**

Clinical laboratory diagnostics 800 (KDK 800) - Credits: 400.00 Mini-dissertation: Clinical laboratory diagnostics 890 (KDK 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

#### **Core modules**

Clinical laboratory diagnostics 800 (KDK 800) - Credits: 400.00 Mini-dissertation: Clinical laboratory diagnostics 890 (KDK 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **MVeterinary Medicine Diagnostic Imaging (Coursework) (08250142)**

Duration of study 2 years

#### **Programme information**

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

#### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.



# **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.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

## **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Diagnostic imaging 870 (DIM 870) - Credits: 400.00 Mini-dissertation: Diagnostic imaging 890 (DIM 890) - Credits: 90.00 Medical physics 800 (MFK 800) - Credits: 36.00 Research methodology 812 (VRM 812) - Credits: 9.00

## **Curriculum: Final year**

#### **Core modules**

Diagnostic imaging 870 (DIM 870) - Credits: 400.00 Mini-dissertation: Diagnostic imaging 890 (DIM 890) - Credits: 90.00 Medical physics 800 (MFK 800) - Credits: 36.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **MVeterinary Medicine Equine Medicine (Coursework) (08250053)**

Duration of study 2 years

## **Programme information**

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

#### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

#### **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:

- FSL 787 Physiology
- and three of the following
- CHV 704 Surgery: Horses
- DIM 783 Radiology: Horses
- DIM 784 Non-radiological diagnostic imaging of horses
- FAK 877 Clinical pharmacology
- GEN 703 Equine medicine
- KPA 701 Clinical pathology
- KPA 702 Clinical pathology
- OFM 700 Ophthalmology

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

Also consult the applicable General Regulations.



- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

# **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Equine medicine 802 (GEN 802) - Credits: 400.00 Mini-dissertation: Equine medicine 892 (GEN 892) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

#### **Core modules**

Equine medicine 802 (GEN 802) - Credits: 400.00 Mini-dissertation: Equine medicine 892 (GEN 892) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00



# **MVeterinary Medicine Equine Surgery (08251121)**

Duration of study 2 years

## **Programme information**

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

#### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

#### **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 703 Anatomy



- DIM 783 Radiology: Horses
- DIM 784 Non-radiological diagnostic imaging of horses

And one of the following:

- ANV 771 Anaesthesiology
- GEN 703 Equine medicine
- OFM 700 Ophthalmology
- CHV 704 Surgery: Horses

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

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

## **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Surgery 804 (CHV 804) - Credits: 400.00 Mini-dissertation: Equine surgery 890 (CHV 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Curriculum: Final year**

#### **Core modules**

Surgery 804 (CHV 804) - Credits: 400.00 Mini-dissertation: Equine surgery 890 (CHV 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **MVeterinary Medicine Laboratory Animal Science (08250211)**

Duration of study 2 years

#### **Programme information**

This programme is offered by the Department of Paraclinical Sciences.

#### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.



# **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

Any two appropriate elective module(s) of at least 30 credits as approved by the HOD.

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

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

## **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Laboratory animal science 800 (PFK 800) - Credits: 400.00 Mini-dissertation: Laboratory animal science 890 (PFK 890) - Credits: 130.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

## **Curriculum: Final year**

#### **Core modules**

Laboratory animal science 800 (PFK 800) - Credits: 400.00 Mini-dissertation: Laboratory animal science 890 (PFK 890) - Credits: 130.00 Research methodology 812 (VRM 812) - Credits: 9.00



#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

# **MVeterinary Medicine Ophthalmology (08250251)**

Duration of study 2 years

## **Programme information**

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

#### Attendance requirements

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

#### **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

- FAK 877 Clinical pharmacology
- FSL 788 Physiology
- PAT 808 Ophthalmological pathology

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

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.



## **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Ophthalmology 800 (OFM 800) - Credits: 400.00 Mini-dissertation: Ophthalmology 890 (OFM 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

## **Curriculum: Final year**

#### **Core modules**

Ophthalmology 800 (OFM 800) - Credits: 400.00 Mini-dissertation: Ophthalmology 890 (OFM 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

# MVeterinary Medicine Pathology (Coursework) (08250101)

Duration of study 2 years

## **Programme information**

This programme is offered by the Department of Paraclinical Sciences.

#### Attendance requirements

i. Unless stipulated otherwise, the Dean must be satisfied that the candidates will have sufficient access to appropriate facilities and, where necessary, supervision by an appropriate person to complete the work



required for the degree at a satisfactory level.

- ii. Attendance requirements are determined in each individual case by the head of department concerned.
- iii. Candidates will be required to keep a logbook or similar record of experiential training which is to be signed by the supervisor every 6 months. The logbook or other suitable record is to be made available for auditing when the specialist module is monitored by the South African Veterinary Council.

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

## **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.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.



## **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Pathology 800 (PAT 800) - Credits: 400.00 Mini-dissertation: Pathology 890 (PAT 890) - Credits: 90.00 Histology 800 (HIS 800) - Credits: 20.00 Research methodology 812 (VRM 812) - Credits: 9.00

## **Curriculum: Final year**

#### **Core modules**

Pathology 800 (PAT 800) - Credits: 400.00 Mini-dissertation: Pathology 890 (PAT 890) - Credits: 90.00 Histology 800 (HIS 800) - Credits: 20.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **MVeterinary Medicine Pharmacology (08251131)**

Duration of study 2 years

## **Programme information**

This programme is offered by the Department of Paraclinical Sciences.

#### **Attendance requirements**



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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

## **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.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that



many of these colleges require a final mark of at least 60% for admission.

# **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Pharmacology 800 (FAK 800) - Credits: 344.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Mini-dissertation: Pharmacology 895 (FAK 895) - Credits: 126.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 Biostatistics in veterinary science 852 (EPL 852) - Credits: 20.00

## **Curriculum: Final year**

**Fundamental modules** Biostatistics in veterinary science 852 (EPL 852) - Credits: 20.00

#### **Core modules**

Pharmacology 800 (FAK 800) - Credits: 344.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Mini-dissertation: Pharmacology 895 (FAK 895) - Credits: 126.00



Research methodology 812 (VRM 812) - Credits: 9.00

# **Elective modules**

Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 Biostatistics in veterinary science 852 (EPL 852) - Credits: 20.00

# MVeterinary Medicine Pig Herd Health (08250182)

Duration of study 2 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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

# **Additional requirements**

# **Attendance requirements**

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

# Other programme-specific information

Any appropriate elective module(s) of at least 10 credits as approved by the HOD.



# **Examinations and pass requirements**

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

## **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

**Core modules** Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Pig herd health 800 (VKH 800) - Credits: 400.00 Mini-dissertation: Pig herd health 890 (VKH 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### Elective modules

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00



Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

## **Curriculum: Final year**

#### **Core modules**

Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Pig herd health 800 (VKH 800) - Credits: 400.00 Mini-dissertation: Pig herd health 890 (VKH 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00



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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

# **MVeterinary Medicine Poultry Diseases (Coursework) (08250171)**

Duration of study 2 years

# **Programme information**

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

## **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the



particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

## **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**

Any appropriate elective module(s) of at least 5 credits as approved by the HOD.

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

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

#### **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Poultry health and production 800 (PHP 800) - Credits: 400.00 Mini-dissertation: Poultry diseases 890 (PVT 890) - Credits: 90.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

## **Curriculum: Final year**



#### **Core modules**

Poultry health and production 800 (PHP 800) - Credits: 400.00 Mini-dissertation: Poultry diseases 890 (PVT 890) - Credits: 90.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

# **MVeterinary Medicine Reproduction (Coursework) (08250031)**

Duration of study 2 years

## **Programme information**

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

#### **Attendance requirements**

- i. Unless stipulated otherwise, the Dean must be satisfied that the candidates will have sufficient access to appropriate facilities and, where necessary, supervision by an appropriate person to complete the work required for the degree at a satisfactory level.
- ii. Attendance requirements are determined in each individual case by the head of department concerned.



iii. Candidates will be required to keep a logbook or similar record of experiential training which is to be signed by the supervisor every 6 months. The logbook or other suitable record is to be made available for auditing when the specialist module is monitored by the South African Veterinary Council.

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

## **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.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

#### **Research information**

#### **Mini-dissertation**

Also consult the General Regulations.



- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Reproduction 800 (GSK 800) - Credits: 400.00 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Mini-dissertation 891 (GSK 891) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **Curriculum: Final year**

#### **Core modules**

Reproduction 800 (GSK 800) - Credits: 400.00 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Mini-dissertation 891 (GSK 891) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

# MVeterinary Medicine Small Animal Medicine (Coursework) (08250054)

Duration of study

2 years

# **Programme information**

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



### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

### **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:

- GEN 702 Small animal medicine
- GEN 707 Small animal medicine

and two of the following:

- DIM 781 Radiology: Dogs and cats
- DIM 782 Non-radiological diagnostic imaging of dogs and cats
- KPA 701 Clinical pathology



- KPA 702 Clinical pathology
- ANV 771 Anaesthesiology
- FAK 877 Clinical pharmacology
- FSL 787 Physiology
- PAT 871 Mechanisms of disease

### **Examinations and pass requirements**

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

# **Research information**

### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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



#### **Core modules**

Small animal medicine 803 (GEN 803) - Credits: 400.00 Mini-dissertation: Small animal medicine 893 (GEN 893) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

### **Curriculum: Final year**

#### **Core modules**

Small animal medicine 803 (GEN 803) - Credits: 400.00 Mini-dissertation: Small animal medicine 893 (GEN 893) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

# MVeterinary Medicine Small Animal Surgery (Coursework) (08250022)

Duration of study 2 years

### **Programme information**

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

### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

### **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:

- CHV 703 Surgery: Small animals (Soft tissue)
- CHV 705 Surgery: Small animals (Orthopaedics)
- ANG 705 Anatomy
- DIM 781 Radiology: Dogs and cats

# Examinations and pass requirements

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

# **Research information**

# **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

### **Core modules**

Mini-dissertation: Small animal surgery 892 (CHV 892) - Credits: 90.00 Surgery 803 (CHV 803) - Credits: 400.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **Curriculum: Final year**

Core modules Mini-dissertation: Small animal surgery 892 (CHV 892) - Credits: 90.00 Surgery 803 (CHV 803) - Credits: 400.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **MVeterinary Medicine Small Stock Herd Health (08250241)**

Duration of study 2 years

# **Programme information**

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

### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

# **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**

Any appropriate elective module(s) of at least 10 credits as approved by the HOD.

# **Examinations and pass requirements**

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

# **Research information**

### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Small stock herd health 800 (KKS 800) - Credits: 400.00 Mini-dissertation: Small stock herd health 890 (KKS 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00



# **Curriculum: Final year**

### **Core modules**

Small stock herd health 800 (KKS 800) - Credits: 400.00 Mini-dissertation: Small stock herd health 890 (KKS 890) - Credits: 90.00 Research methodology 812 (VRM 812) - Credits: 9.00

### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

# **MVeterinary Medicine Toxicology (08251141)**

Duration of study 3 years

# **Programme information**

This programme is offered by the Department of Paraclinical Sciences.

### **Attendance requirements**

i. Unless stipulated otherwise, the Dean must be satisfied that the candidates will have sufficient access to appropriate facilities and, where necessary, supervision by an appropriate person to complete the work required for the degree at a satisfactory level.



- ii. Attendance requirements are determined in each individual case by the head of department concerned.
- iii. Candidates will be required to keep a logbook or similar record of experiential training which is to be signed by the supervisor every 6 months. The logbook or other suitable record is to be made available for auditing when the specialist module is monitored by the South African Veterinary Council.

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

# **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.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

# **Research information**

#### **Mini-dissertation**



Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

#### **Core modules**

Toxicology 800 (TOK 800) - Credits: 270.00 Mini-dissertation: Toxicology 890 (TOK 890) - Credits: 90.00 Biostatistics in veterinary science 852 (EPL 852) - Credits: 20.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **Curriculum: Final year**

### **Core modules**

Toxicology 800 (TOK 800) - Credits: 270.00 Mini-dissertation: Toxicology 890 (TOK 890) - Credits: 90.00 Biostatistics in veterinary science 852 (EPL 852) - Credits: 20.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Research methodology 812 (VRM 812) - Credits: 9.00

# **MVeterinary Medicine Veterinary Public Health (Coursework) (08250041)**

Duration of study 2 years

# **Programme information**

This programme is offered by the Department of Paraclinical Sciences.

#### **Attendance requirements**

i. Unless stipulated otherwise, the Dean must be satisfied that the candidates will have sufficient access to



appropriate facilities and, where necessary, supervision by an appropriate person to complete the work required for the degree at a satisfactory level.

- ii. Attendance requirements are determined in each individual case by the head of department concerned.
- iii. Candidates will be required to keep a logbook or similar record of experiential training which is to be signed by the supervisor every 6 months. The logbook or other suitable record is to be made available for auditing when the specialist module is monitored by the South African Veterinary Council.

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet degree.

# **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

Any appropriate elective module(s) of at least 10 credits as approved by the HOD.

# **Examinations and pass requirements**

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.



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

# **Research information**

### **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

### **Core modules**

Research methodology 811 (VRM 811) - Credits: 20.00 Veterinary public health 800 (VVD 800) - Credits: 300.00 Mini-dissertation: Veterinary public health 895 (VVD 895) - Credits: 100.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Basic veterinary epidemiology 851 (EPL 851) - Credits: 10.00

### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00



Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

# **Curriculum: Final year**

### **Core modules**

Research methodology 811 (VRM 811) - Credits: 20.00 Veterinary public health 800 (VVD 800) - Credits: 300.00 Mini-dissertation: Veterinary public health 895 (VVD 895) - Credits: 100.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Basic veterinary epidemiology 851 (EPL 851) - Credits: 10.00

### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00

# **MVeterinary Medicine Wildlife Diseases (08250221)**

Duration of study 2 years

# **Programme information**

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

### **Attendance requirements**

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

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 General Regulations, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the head of department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVScHons degree with modules applicable to the particular MMedVet degree programme. Please note the prerequisites listed under certain programmes. A minimum of 60% in each module may be required before a student may commence studies for the MMedVet



degree.

# **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

Any appropriate elective module(s) of at least 5 credits as approved by the HOD.

# **Examinations and pass requirements**

Also consult the applicable General Regulations.

- i. The examination(s) in the specialist field of study may only be taken from the end of the second year of study onwards.
- ii. 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.
- iii. A minimum examination mark of 50% is required in each of the theoretical and practical and oral sections of the specialist module.
- iv. Students who intend applying for membership of a specialist college abroad later on, should bear in mind that many of these colleges require a final mark of at least 60% for admission.

# **Research information**

# **Mini-dissertation**

Also consult the General Regulations.

- i. A student must submit a mini-dissertation, which deals with the particular field of specialization.
- ii. A mini-dissertation is based on a research project or related research projects (which need not be original), planned and written down by the student within the theme of the chosen 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.

iii. The average of the separate marks awarded by all the examiners, constitutes the final mark for the minidissertation. 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**

### **Core modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Mini-dissertation: Wildlife diseases 890 (WSK 890) - Credits: 90.00 Veterinary wildlife studies 800 (WLS 800) - Credits: 420.00 Research methodology 812 (VRM 812) - Credits: 9.00

### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00

# **Curriculum: Final year**

### **Core modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Mini-dissertation: Wildlife diseases 890 (WSK 890) - Credits: 90.00 Veterinary wildlife studies 800 (WLS 800) - Credits: 420.00



Research methodology 812 (VRM 812) - Credits: 9.00

#### **Elective modules**

Pathology: Wildlife 806 (PAT 806) - Credits: 28.00 Necropsy technique and interpretation 807 (PAT 807) - Credits: 28.00 Ophthalmological pathology 808 (PAT 808) - Credits: 20.00 Selected infectious diseases: Pigs 815 (SID 815) - Credits: 15.00 Veterinary industrial pharmacology 800 (VIP 800) - Credits: 50.00 Veterinary public health: Meat hygiene 881 (VPH 881) - Credits: 40.00 Veterinary public health: Poultry food hygiene 882 (VPH 882) - Credits: 40.00 Veterinary public health: Veterinary milk hygiene 883 (VPH 883) - Credits: 40.00 Veterinary public health: Environmental health and biosecurity 884 (VPH 884) - Credits: 40.00 Advanced fundamentals of pharmacology 876 (FAK 876) - Credits: 30.00 Clinical pharmacology 877 (FAK 877) - Credits: 30.00 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 Reproductive physiology 801 (GSK 801) - Credits: 20.00 Assisted reproduction 802 (GSK 802) - Credits: 30.00 Female infertility 803 (GSK 803) - Credits: 20.00 Male breeding soundness and andrology 804 (GSK 804) - Credits: 20.00 Reproduction: Capita selecta 805 (GSK 805) - Credits: 20.00 Small stock health 801 (SSH 801) - Credits: 40.00 Ruminant health 801 (RUM 801) - Credits: 40.00 Bovine herd health 801 (BHH 801) - Credits: 40.00 Poultry health and production 871 (PHP 871) - Credits: 32.00 Veterinary toxicology: Organ/systems toxicology 801 (TOK 801) - Credits: 30.00 Mechanisms of disease 871 (PAT 871) - Credits: 20.00 Histology 800 (HIS 800) - Credits: 20.00



# Doctorate

# **DVeterinary Science Anatomy and Physiology (08260002)**

Duration of study 2 years

# **Programme information**

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

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

# **Admission requirements**

Subject to the stipulations of the applicable General Regulations, the degree is conferred on a candidate who enjoys international recognition by virtue of outstanding and extensive research.

# **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

# **DVeterinary Science Companion Animal Clinical Studies (08260003)**

Duration of study 2 years

# **Programme information**

This programme is offered by the Department of Companion Animal Clinical Studies. The DVSc degree is conferred by virtue of publications (consult the applicable General Regulation).

# **Admission requirements**

Subject to the stipulations of the applicable General Regulations, the degree is conferred on a candidate who enjoys international recognition by virtue of outstanding and extensive research.

# **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



# **DVeterinary Science Paraclinical Sciences (08260005)**

Duration of study 2 years

# **Programme information**

This programme is offered by the Department of Paraclinical Sciences.

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

# **Admission requirements**

Subject to the stipulations of the applicable General Regulations, the degree is conferred on a candidate who enjoys international recognition by virtue of outstanding and extensive research.

# **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

# **DVeterinary Science Production Animal Studies (08260004)**

Duration of study 2 years

# **Programme information**

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

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

# **Admission requirements**

Subject to the stipulations of the applicable General Regulations, the degree is conferred on a candidate who enjoys international recognition by virtue of outstanding and extensive research.

# **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

# **DVeterinary Science Veterinary Tropical Diseases (08260006)**

Duration of study 2 years

# **Programme information**

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



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

### **Admission requirements**

Subject to the stipulations of the applicable General Regulations, the degree is conferred on a candidate who enjoys international recognition by virtue of outstanding and extensive research.

### **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

2 years

# PhD Anatomy and Physiology (08261002)

Duration of study

### **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.

### **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 (08261003)

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.

### **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 (08261004)

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.

# **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 (08261005)

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.

# **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 (08260271)

Duration of study 2 years

# **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.



# **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

# Animal/Human/Ecosystem Health 801 (AHE 801)

Qualification	Postgraduate
Module credits	30.00
Programmes	MSc Option: Veterinary Public Health
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2

### Module content

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

# Disease surveillance and laboratory diagnostics 803 (AHE 803)

Qualification	Postgraduate
Module credits	25.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	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)

Qualification	Postgraduate
Module credits	20.00
Prerequisites	No prerequisites.
Language of tuition	English



Academic organisation	Veterinary Tropical Diseases
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Period of presentation 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)

Qualification	Postgraduate
Module credits	20.00
Programmes	MSc Option: Veterinary Public Health
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	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)

Qualification	Postgraduate
Module credits	
Module credits	15.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	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)

Qualification	Postgraduate
Module credits	30.00



Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1
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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)

Qualification	Postgraduate
Module credits	30.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	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)

Qualification	Postgraduate
Module credits	20.00
Programmes	MSc Option: Veterinary Public Health
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	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)



Qualification	Postgraduate
Module credits	20.00
Programmes	MSc Option: Veterinary Public Health
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1

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).

# Advanced one health 812 (AHE 812)

Qualification	Postgraduate
Module credits	12.00
Programmes	MSc Tropical Animal Health (Coursework)
Language of tuition	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	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1



### (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	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2
Module content	

### module cont

(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 reemerging 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	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	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)

Qualification	Postgraduate
Module credits	80.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	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.

#### Qualification Postgraduate Module credits 90.00 Programmes MSc Tropical Animal Health (Coursework) Language of tuition English Veterinary Tropical Diseases Academic organisation Period of presentation Year

# Mini-dissertation 895 (AHE 895)



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.

#### Academic information management 101 (AIM 101)

Qualification	Undergraduate
Module credits	6.00



BA (Fine Arts) Fine Arts **BA Audiology BA Extended Programme BA Humanities BA Information Design Information Design BA Languages Languages BA Music Music** BA Option: Sport and Leisure in Society BA Option: Sport and Recreation Management BA Option: Sports Coaching Science **BA Option: Sports Psychology BA Visual Studies BAdmin International Relations BAdmin Option: Public Administration BAdmin Public Management BChD Dentistry BCom Accounting Sciences BCom Agribusiness Management BCom Business Management BCom Communication Management BCom Econometrics** BCom Economic and Management Sc **BCom Economics** BCom Entrepreneurship **BCom Financial Sciences BCom Human Resource Management BCom Informatics: Information Systems BCom Investment Management** BCom Marketing Management BCom Option: Supply Chain Management **BCom Recreation and Sports Management BCom Statistics BCur Nursing Science BDietetics Dietetics BDiv Theology BDram Drama BEd Foundation Phase Teaching BEd Intermediate Phase Teaching** BEd Senior Phase and Further Education and Training Teaching BHCSc Heritage and Cultural Tourism **BIS Information Science BIS Multimedia BIS Publishing BIT Information Technology BMus Music** BOH Oral Hygiene **BOccTher Occupational Therapy BPhysT Physiotherapy BPolSci International Studies BPolSci Political Studies BRad Diagnostics** BSc (Construction Management) Construction Management (3Years) BSc Information Technology Information and Knowledge Systems **BSc Real Estate** BSc(Computer Science) Computer Science BSc: Quantity Surveying (3Yrs) Quantity Surveying BSocSci Industrial Sociology and Labour Studies BSocSci Option: Philosophy, Politics and Economics **BSocial Work Social Work** BSportSci BSportSci **BTh Theology** BTown and Regional Planning Town and Regional Planning **BVeterinary Science Veterinary Science** HCert (Sports Science) Option: Education HCert (Sports Science) Option: Sports Coaching **MBChB Medicine** 

Programmes



Service modules	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 Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Information Science
Period of presentation	Semester 1

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



Programmes	BA Law BCon Law BConsumer Science Clothing: Retail Management BConsumer Science Foods: Retail Management BConsumer Science Hospitality Management BSC (Interior Architecture) Interior Architecture BSC (Landscape Architecture) Landscape Architecture BSC Achitecture) Landscape Architecture BSC Applied Mathematics BSC Architecture BSC Biological Sciences BSC Biotechnology BSC Eloiology BSC Chemistry BSC Environmental Sciences BSC Environmental Sciences BSC Environmental Ad Engineering Geology BSC Food Science BSC Genetics BSC Geography BSC Geology BSC Geology BSC Geology BSC Geology BSC Human Genetics BSC Geology BSC Human Physiology BSC Human Physiology BSC Mathematics BSC Mathema
Service modules	Faculty of Education Faculty of Economic and Management Sciences Faculty of Humanities Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science



Contact time	2 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Information Science
Period of presentation	Semester 2

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 (Fine Arts) Fine Arts **BA Audiology BA Extended Programme BA Humanities BA Information Design Information Design BA Languages Languages BA** Law **BA Music Music** BA Option: Sport and Leisure in Society BA Option: Sport and Recreation Management BA Option: Sports Coaching Science **BA Option: Sports Psychology BA Visual Studies BCMP Clinical Medical Practice** BCom (M) Four-year programme **BConsumer Science Clothing: Retail Management** BConsumer Science Foods: Retail Management **BConsumer Science Hospitality Management BDiv Theology** BDram Drama **BEd Foundation Phase Teaching BEd Intermediate Phase Teaching** BEd Senior Phase and Further Education and Training Teaching BHCSc Heritage and Cultural Tourism **BPolSci International Studies BPolSci Political Studies BSc Actuarial and Financial Mathematics BSc Applied Mathematics BSc Biochemistry BSc Biological Sciences** BSc Biotechnology **BSc Chemistry BSc Ecology BSc Entomology BSc Environmental Sciences** BSc Environmental and Engineering Geology BSc Extended programme - Biological and Agricultural Sciences BSc Extended programme - Mathematical Sciences BSc Extended programme - Physical Sciences BSc Food Management (4 years) **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 Nutrition BSc Physics BSc Plant Science BSc Zoology** BScAgric Agricultural Economics: Agribusiness Management **BScAgric Animal Science** BScAgric Animal Science: Pasture Science BScAgric Food Science and Technology BScAgric Option: Applied Plant and Soil Sciences **BScAgric Plant Pathology** BSocSci Industrial Sociology and Labour Studies BSocSci Option: Philosophy, Politics and Economics **BSocial Work Social Work BTh Theology** University Diploma Theology

#### Programmes



Service modules	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 Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Theology Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week, MAMELODI
Language of tuition	Both Afr and Eng
Academic organisation	Information Science
Period of presentation	Semester 2

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)

Qualification	Undergraduate
Module credits	24.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	5 demonstrations/4 lectures per week, 1 demonstration/3 lectures per week
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

### Module content

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

### Anatomy 703 (ANG 703)

Qualification	Postgraduate
Module credits	32.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year



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)

Qualification	Postgraduate
Module credits	32.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	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)

Qualification	Postgraduate
Module credits	30.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	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)

Qualification	Undergraduate
Module credits	8.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	3 times per semester, 3 lectures per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies



### **Period of presentation** Semester 2

### Module content

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

### Anaesthesiology 771 (ANV 771)

Qualification	Postgraduate
Module credits	30.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	400.00
Programmes	MVeterinary Medicine Anaesthesiology (Coursework)
Prerequisites	BVScHons with ANG 774, FSL 787, FSL 788 and ANV 771
Contact time	5 discussion classes per week, 0.5 seminar per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	90.00
Programmes	MVeterinary Medicine Anaesthesiology (Coursework)
Prerequisites	ANG 774, FSL 787, FSL 788 and ANV 771
Language of tuition	English
Academic organisation	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	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2
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# Module content

Skills training (elective)

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	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2

### **Module content**

Skills training (elective)

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	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2

### Module content

Skills training (elective)

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	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	English



Academic organisation	Veterinary Tropical Diseases
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Period of presentation Semester 2

### **Module content**

Skills training (elective)

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)

Qualification	Postgraduate
Module credits	40.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	A BVSc, a four year BSc in Agriculture (Animal Science), Microbiology, Zoology or an equivalent degree
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	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)

Qualification	Undergraduate
Module credits	25.00
Programmes	BVeterinary Science Veterinary Science
Contact time	9 lectures per week, 3 practicals per week



Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Semester 1

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)

Qualification	Undergraduate
Module credits	43.00
Prerequisites	No prerequisites.
Contact time	Yes, 7.9 practicals per week
Language of tuition	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	400.00
Programmes	MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

### **Module content**

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

## Mini-dissertation: Cattle herd health 890 (BKG 890)

Qualification

Postgraduate



Module credits	90.00
Programmes	MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

# Biometry 120 (BME 120)

Qualification	Undergraduate
Module credits	16.00
Programmes	BSC Biochemistry BSC Biological Sciences BSC Biotechnology BSC Chemistry BSC Ecology BSC Entomology BSC Environmental Sciences BSC Extended programme - Biological and Agricultural Sciences BSC Extended programme - Physical Sciences BSC Extended programme - Physical Sciences BSC Food Management (4 years) BSC Food Science BSC Geology BSC Geology BSC Human Genetics BSC Geology BSC Human Physiology, Genetics and Psychology BSC Human Physiology, Genetics and Psychology BSC Information Technology Information and Knowledge Systems BSC Medical Sciences BSC Medical Sciences BSC Microbiology BSC Nutrition BSC Plant Science BSC Zoology BSC Agric Animal Science: Pasture Science BSCAgric Animal Science: Pasture Science BSCAgric Coption: Applied Plant and Soil Sciences BSCAgric Plant Pathology BSCHons Biotechnology BSCHons Biotechnology BVeterinary Science Veterinary Science
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	Both Afr and Eng
Academic organisation	Statistics
Period of presentation	Semester 2

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
Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	40 discussion classes per week
Language of tuition	English
Academic organisation	School of Health Syst & Public
Period of presentation	Year
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#### Module content

Students learn when and how to perform economic analyses.

## Surgery: Small animals 703 (CHV 703)

Qualification	Postgraduate
Module credits	33.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year



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)

Qualification	Postgraduate
Module credits	33.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

#### **Module content**

Advanced theoretical study of equine surgery.

## Surgery: Small animals 705 (CHV 705)

Qualification	Postgraduate
Module credits	33.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

#### **Module content**

Applicable aspects of small animal orthopaedic surgery (fractures and joints), spinal surgery and oromaxillofacial 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)

Qualification

Postgraduate



Module credits	400.00
Prerequisites	BVScHons with ANG 703, DIM 783, DIM 784 and one of the following: ANV 771, GEN 703, OFM 700 and CHV 704
Language of tuition	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	400.00
Programmes	MVeterinary Medicine Small Animal Surgery (Coursework)
Prerequisites	BVScHons with CHV 703, CHV 705, ANG 705 and DIM 781.
Language of tuition	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	400.00
Programmes	MVeterinary Medicine Equine Surgery
Prerequisites	No prerequisites.
Language of tuition	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	MVeterinary Medicine Equine Surgery
Language of tuition	English



Academic organisation Companion Animal Clin Studies

Period of presentation Year

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

Qualification	Postgraduate
Module credits	90.00
Programmes	MVeterinary Medicine Small Animal Surgery (Coursework)
Prerequisites	CHV 703, CHV 705, ANG 705 and DIM 781.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

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

Qualification	Postgraduate
Module credits	90.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

## Information literacy 121 (CIL 121)

Qualification	Undergraduate
Module credits	4.00
Service modules	Faculty of Education Faculty of Law Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	School of Information Technolo
Period of presentation	Semester 1 and Semester 2



\*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 srategies. 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
Module credits	7.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 1

#### Module content

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

### General chemistry 117 (CMY 117)

Qualification	Undergraduate
Module credits	16.00



Programmes	BDietetics Dietetics BEd Senior Phase and Further Education and Training Teaching BSc Biological Sciences BSc Biotechnology BSc Entomology BSc Ecology BSc Entomology BSc Entomonental Sciences BSc Environmental Sciences BSc Environmental and Engineering Geology BSc Food Management (4 years) BSc Food Science BSc Geoletics BSc Geology BSc Geology BSc Human Genetics BSc Geology BSc Human Physiology, Genetics and Psychology BSc Human Physiology, Genetics and Psychology BSc Medical Sciences BSc Meteorology BSc Nutrition BSc Physics BSc Physics BS
Service modules	Faculty of Engineering, Built Environment and Information Technology Faculty of Education Faculty of Health Sciences Faculty of Veterinary Science
Prerequisites	Final Grade 12 marks of at least 60% for Mathematics and 60% for Physical Sciences.
Contact time	1 practical per week, 4 lectures per week
Language of tuition	Both Afr and Eng
Academic organisation	Chemistry
Period of presentation	Semester 1



General introduction to inorganic, analytical and physical chemistry. Atomic structure and periodicity. Molecular structure and chemical bonding using the VSEOR model. Nomenclature of iorganic 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
Internet in the second s	BDietetics Dietetics BEd Senior Phase and Further Education and Training Teaching BSc Biochemistry BSc Biological Sciences BSc Biotechnology BSc Ecology BSc Environmental Sciences BSc Environmental and Engineering Geology BSc Environmental and Engineering Geology BSc Extended programme - Biological and Agricultural Sciences BSc Environmental and Engineering Geology BSc Extended programme - Physical Sciences BSc Extended programme - Physical Sciences BSc Food Management (4 years) BSc Food Science BSc Geology BSc Geology BSc Human Genetics BSc Geology BSc Human Physiology, Genetics and Psychology BSc Human Physiology, Genetics and Psychology BSc Medical Sciences BSc Meteorology BSc Nutrition BSc Physics BSc Phant Science BSc Zoology BSc Phant Science BSc Agric Agricultural Economics: Agribusiness Management BScAgric Animal Science BScAgric Animal Science BScAgric Animal Science BScAgric Food Science and Technology BScAgric Option: Applied Plant and Soil Sciences BScAgric Plant Pathology BVeterinary Science Veterinary Science



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	Both Afr and Eng
Academic organisation	Chemistry
Period of presentation	Semester 2

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

## Surgical nursing 200 (CVP 200)

Qualification	Undergraduate
Module credits	38.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	Semester 2: 5 clinical weeks per semester, Semester 1: 6 lectures per week, Semester 1: 1 clinical week per semester
Language of tuition	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	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week S2, 3 lectures per week S1
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

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
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	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)

Qualification	Postgraduate
Module credits	30.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year



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)

Qualification	Postgraduate
Module credits	33.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Contact time	1 lecture per week, 1 discussion class per week, 1 seminar per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Contact time	1 seminar per week, 1 practical per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year



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	400.00
Programmes	MVeterinary Medicine Diagnostic Imaging (Coursework)
Prerequisites	BVScHons with ANG 774 and three of the following depending on specie bias: DIM 781, DIM 782, DIM 783, GEN 703 or GEN 707.
Language of tuition	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)

Qualification	Postgraduate
Module credits	90.00
Programmes	MVeterinary Medicine Diagnostic Imaging (Coursework)
Prerequisites	ANG 774 and three of the following depending on specie bias: DIM 781, DIM 782, DIM 783, GEN 703 or GEN 707.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

## Diagnostic pathology 400 (DPT 400)

Qualification	Undergraduate
Module credits	16.00
Programmes	BVeterinary Science Veterinary Science



Prerequisites	No prerequisites.
Contact time	30 practicals per year, 2 lectures per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

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

## Diagnostic pathology 510 (DPT 510)

Qualification	Undergraduate
Module credits	9.00
Programmes	BVeterinary Science Veterinary Science
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Semester 1

### Module content

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

## Applied equine clinical studies 650 (ECS 650)

Qualification	Undergraduate
Module credits	42.00
Prerequisites	No prerequisites.
Contact time	Yes, 9.9 practicals per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year
Module content	

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

## Basis in environmental health 870 (EHM 870)

Qualification	Postgraduate
Module credits	5.00
Programmes	MSc Option: Veterinary Public Health



Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	1 lecture per week, 1 other contact session per week, 1 discussion class per week, 1 practical per week, 1 seminar per week
Language of tuition	English
Academic organisation	School of Health Syst & Public
Period of presentation	Year

### Health risk assessment 871 (EHM 871)

Module credits10.00ProgrammesMSc Clinical Epidemiology MSc Epidemiology MSc Option: Veterinary Public Health MSc Public HealthService modulesFaculty of Veterinary SciencePrerequisitesEOH 871Language of tuitionEnglishAcademic organisationSchool of Health Syst & Public	Qualification	Postgraduate
ProgrammesMSc Epidemiology MSc Option: Veterinary Public Health MSc Public HealthService modulesFaculty of Veterinary SciencePrerequisitesEOH 871Language of tuitionEnglishAcademic organisationSchool of Health Syst & Public	Module credits	10.00
PrerequisitesEOH 871Language of tuitionEnglishAcademic organisationSchool of Health Syst & Public	Programmes	MSc Epidemiology MSc Option: Veterinary Public Health
Language of tuitionEnglishAcademic organisationSchool of Health Syst & Public	Service modules	Faculty of Veterinary Science
Academic organisation School of Health Syst & Public	Prerequisites	EOH 871
	Language of tuition	English
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## Veterinary epidemiology 510 (EPL 510)

Qualification	Undergraduate
Module credits	10.00
Programmes	BVeterinary Science Veterinary Science
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Semester 1

#### **Module content**

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

### Basic epidemiology 802 (EPL 802)

Qualification

Postgraduate



Module credits	12.00
Programmes	MSc Tropical Animal Health (Coursework)
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1

(compulsory)

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)

Qualification	Postgraduate
Module credits	12.00
Programmes	MSc Tropical Animal Health (Coursework)
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	9.00
Programmes	MSc Tropical Animal Health (Coursework)
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2
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### Module content

### Skills training (elective)

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)

Qualification	Postgraduate
Module credits	10.00



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Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Public Health MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	A BVSc or equivalent qualification. Non-veterinary graduates will be considered under exceptional circumstances. Recommended: Grade 12 Mathematics.
Contact time	1 other contact session per week, 1 web-based period per week
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	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)**

Qualification	Postgraduate
Module credits	20.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pharmacology MVeterinary Medicine Pig Herd Health MVeterinary Medicine Pig Herd Health MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Toxicology MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	BVSc or equivalent qualification and Grade 12 Mathematics.
Contact time	2 seminars per week
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Semester 1



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 Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	EPL 851 and EPL 852
Contact time	2 seminars per week
Language of tuition	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 Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases



Prerequisites	No prerequisites.
Contact time	1 web-based period per week
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Semester 1 or Semester 2

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)

Qualification	Postgraduate
Module credits	5.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Contact time	1 web-based period per week
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	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.

### Mini-dissertation: Veterinary epidemiology 890 (EPL 890)

Qualification	Postgraduate
Module credits	120.00
Programmes	MSc Option: Veterinary Epidemiology (Coursework)
Prerequisites	No prerequisites.



Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

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### Module content

Mini-dissertation

### Equine medicine and surgery 410 (EQM 410)

Qualification	Undergraduate
Module credits	14.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	7 lectures per week, 1 practical per semester
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 1

### Module content

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

### Pharmacology 120 (FAK 120)

Qualification	Undergraduate
Module credits	7.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	4 lectures per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	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)

Qualification	Postgraduate
Module credits	344.00
Programmes	MVeterinary Medicine Pharmacology
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

#### **Module content**

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

## Advanced fundamentals of pharmacology 876 (FAK 876)

Qualification	Postgraduate	
Module credits	30.00	
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Veterinary Industrial Pharmacology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pharmacology MVeterinary Medicine Pharmacology MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases	
Prerequisites	No prerequisites.	
Language of tuition	English	
Academic organisation	Paraclinical Sciences	
Period of presentation	Year	



Scope and historical development of veterinary pharmacology.

Veterinary pharmaceutics and formulation theory.

Pharmacokinetic theory, pharmacokinetic analysis and modelling.

Bioequivalence theory and evaluation.

Physicochemical and molecular basis of drug action.

Dose response and calculation of dose response parameters.

Pharmacological modulation of organ and body functions.

Molecular basis of action and pharmacological effects of chemotherapeutic agents.

Adverse drug reactions, interactions and pharmacovigilance.

Comparative species pharmacology, pharmacogenomics and pharmacogenetics.

Background on complementary medicines.

Fundamentals of pharmacological research.

## Clinical pharmacology 877 (FAK 877)

Qualification	Postgraduate	
Module credits	30.00	
Programmes	BVeterinary Science (Hons) Veterinary Science MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pharmacology MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases	
Prerequisites	No prerequisites.	
Contact time	1 lecture per week	
Language of tuition	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)

Qualification

Postgraduate



Module credits	126.00
Programmes	MVeterinary Medicine Pharmacology
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

## Physiology 788 (FSG 788)

Qualification	Postgraduate
Module credits	5.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year
Module content	

Applied Physiology of a selected topic (capita selecta).

## Physiology 104 (FSL 104)

Qualification	Undergraduate
Module credits	22.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	Semester 2: 3 lectures per week, Semester 1: 8 lectures per week
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

### **Module content**

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

## Physiology 787 (FSL 787)

Qualification	Postgraduate
Module credits	30.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.



Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

Pathophysiology of clinical syndromes.

## Physiology 788 (FSL 788)

Qualification	Postgraduate
Module credits	30.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year
Module content	

Physiology of a selected topic (capita selecta).

## Small animal medicine 702 (GEN 702)

Qualification	Postgraduate
Module credits	33.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	40.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.



Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

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

## Small animal medicine 707 (GEN 707)

Qualification	Postgraduate
Module credits	37.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	30.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	400.00
Programmes	MVeterinary Medicine Equine Medicine (Coursework)



Prerequisites	BVScHons with FSL 787 and three of the following: CHV 704, DIM 783, DIM 784, FAK 877, GEN 703, KPA 701, KPA 702 or OFM 700.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

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

## Small animal medicine 803 (GEN 803)

Qualification	Postgraduate
Module credits	400.00
Programmes	MVeterinary Medicine Small Animal Medicine (Coursework)
Prerequisites	BVScHons with GEN 702, GEN 707 and two of the following: DIM 781, DIM 782, KPA 701, KPA 702, ANV 771, FAK 877, FSL 787 or PAT 871.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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: Bovine medicine 891 (GEN 891)

Qualification	Postgraduate
Module credits	115.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

## Mini-dissertation: Equine medicine 892 (GEN 892)

Qualification	Postgraduate
Module credits	90.00
Programmes	MVeterinary Medicine Equine Medicine (Coursework)
Prerequisites	FSL 787 and three of the following: CHV 704, DIM 783, DIM 784, FAK 877, GEN 703, KPA 701, KPA 702 or OFM 700.
Language of tuition	English



Academic organisation Companion Animal Clin Studies

Period of presentation Year

### Mini-dissertation: Small animal medicine 893 (GEN 893)

Qualification	Postgraduate
Module credits	90.00
Programmes	MVeterinary Medicine Small Animal Medicine (Coursework)
Prerequisites	GEN 702, GEN 707 and two of the following: DIM 781, DIM 782, KPA 701, KPA 702, ANV 771, FAK 877, FSL 787 or PAT 871.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

### General surgery 320 (GNS 320)

Qualification	Undergraduate
Module credits	7.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	BLOCK 7: 30 lectures and 2 practicals
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 2

### Module content

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

## General and organ pathology 300 (GOP 300)

Qualification	Undergraduate
Module credits	30.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	7 lectures per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year



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)

Qualification	Postgraduate
Module credits	400.00
Programmes	MVeterinary Medicine Reproduction (Coursework)
Prerequisites	Modules GSK 801 to GSK 804 are prerequisites for GSK 800 and they may be done concurrently with the GSK 800 module.
Contact time	6 ppw
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	20.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Reproduction (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Reproduction (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Contact time	30 contact hours per semester
Language of tuition	English
Academic organisation	Production Animal Studies



#### Period of presentation Quarter 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.

## Assisted reproduction 802 (GSK 802)

Qualification	Postgraduate
Module credits	30.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Reproduction (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Pig Herd Health MVeterinary Medicine Reproduction (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Quarter 2

## Module content

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

# Female infertility 803 (GSK 803)

Qualification	Postgraduate
Module credits	20.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Reproduction (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Reproduction (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases



Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Quarter 3

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

## Male breeding soundness and andrology 804 (GSK 804)

Qualification	Postgraduate
Module credits	20.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Reproduction (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Reproduction (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Quarter 4

#### Module content

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

# Reproduction: Capita selecta 805 (GSK 805)

Qualification	Postgraduate
Module credits	20.00



Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Contact time	5 Seminars per week over a period of 4 weeks
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

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

# Mini-dissertation 891 (GSK 891)

Qualification	Postgraduate
Module credits	90.00
Programmes	MSc Option: Veterinary Reproduction (Coursework) MVeterinary Medicine Reproduction (Coursework)
Prerequisites	No prerequisites.
Contact time	10 Seminars over a period of 2 weeks
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year



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	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, Semester 2: 1 clinical week per semester
Language of tuition	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
Programmes	BEd Senior Phase and Further Education and Training Teaching BSc Biological Sciences 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 Technology Information and Knowledge Systems BSc Medical Sciences BSc Medical Sciences BSc Nutrition BSc Plant Science BSc Zoology BScAgric Agricultural Economics: Agribusiness Management BScAgric Animal Science BScAgric Animal Science BScAgric Coption: Applied Plant and Soil Sciences BScAgric Plant Pathology BVeterinary Science Veterinary Science
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	Both Afr and Eng
Academic organisation	Genetics
Period of presentation	Semester 2

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	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1
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Module content	

(elective)

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
Programmes	MSc Option: Veterinary Public Health
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	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	English
Academic organisation	School of Health Syst & Public
Period of presentation	Year



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)

Qualification	Postgraduate
Module credits	20.00
Programmes	BVeterinary Science (Hons) Veterinary Science MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pathology (Coursework) MVeterinary Medicine Pig Herd Health MVeterinary Medicine Pig Herd Health MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year
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#### 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)

Qualification	Postgraduate
Module credits	15.00
Programmes	MSc Biostatistics MSc Epidemiology MSc Option: Veterinary Public Health MSc Public Health
Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week, 1 practical per week



Language of tuition	English
Academic organisation	School of Health Syst & Public
Period of presentation	Year

Introductory	veterinarv	diagnostics	300	(IVD 300)
merodactory	vecennary	alagnostics		

Qualification	Undergraduate
Module credits	24.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	3 lectures per week, 6 practicals per semester
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

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.

Using clinical cases, the integrated homeostatic responses to disease/insult involving all the body systems. The aim of this section of IVD 300 is therefor to build on basic physiological principles and to explain changes under abnormal situations. 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	400.00
Programmes	MVeterinary Medicine Clinical Laboratory Diagnostics
Prerequisites	BVScHons with KPA 701, KPA 702 and two of the following: FSL 787, FSL 788, PAT 871 and GEN 707.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year



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	MVeterinary Medicine Clinical Laboratory Diagnostics
Prerequisites	KPA 701, KPA 702 and two of the following: FSL 787, FSL 788, PAT 871 or GEN 707.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

## Small stock herd health 800 (KKS 800)

Qualification	Postgraduate
Module credits	400.00
Programmes	MVeterinary Medicine Small Stock Herd Health
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	90.00
Programmes	MVeterinary Medicine Small Stock Herd Health
Prerequisites	No prerequisites.
Language of tuition	English



Academic organisation Production Animal Studies

Period of presentation Year

# Clinical pathology 701 (KPA 701)

Qualification	Postgraduate
Module credits	32.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	31.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	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	BConsumer Science Clothing: Retail Management BConsumer Science Hoopitality Management BSc Actuarial and Financial Mathematics BSc Applied Mathematics BSc Biochemistry BSc Biological Sciences BSc Biotechnology BSc Chemistry BSc Ecology BSc Chemistry BSc Ecology BSc Entomology BSc Entomology BSc Entomology BSc Environmental Sciences BSc Environmental and Engineering Geology BSc Food Management (4 years) BSc Food Management (4 years) BSc Geoetics BSc Geoetics BSc Geoetics BSc Geoetics BSc Geology BSc Human Genetics BSc Geology BSc Human Cenetics BSc Human Physiology BSc Human Physiology, Genetics and Psychology BSc Mathematical Statistics BSc Mathematical Statistics BSc Mathematical Statistics BSc Mathematical Statistics BSc Mathematical Statistics BSc Mathematical Statistics BSc Plant Science BSc Plant Science BSc Agric Agricultural Economics: Agribusiness Management BScAgric Animal Science BScAgric Animal Science BScAgric Animal Science BScAgric Animal Science BScAgric Animal Science BScAgric Coption: Applied Plant and Soil Sciences BScAgric Plant Pathology BVeterinary Science Veterinary Science
Service modules	Faculty of Natural and Agricultural Sciences Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Unit for Academic Literacy
Period of presentation	Semester 1



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)

Qualification	Undergraduate
Module credits	11.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	6 lectures per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Undergraduate
Module credits	10.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	5 lectures per week, 5 practical sessions per week
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	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)

Qualification	Postgraduate
Module credits	36.00



Programmes	MMed Radiological Diagnostics MVeterinary Medicine Diagnostic Imaging (Coursework)
Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Physics
Period of presentation	Year

# Molecular and cell biology 111 (MLB 111)

Qualification	Undergraduate
Module credits	16.00
Programmes	BChD Dentistry   BDietetics Dietetics   BEd Senior Phase and Further Education and Training Teaching   BSc Biological Sciences   BSc Biotechnology   BSc Chemistry   BSc Ecology   BSc Entomology   BSc Enomental Sciences   BSc Food Management (4 years)   BSc Food Science   BSc Genetics   BSc Genetics   BSc Geology   BSc Geology   BSc Human Genetics   BSc Information Technology Information and Knowledge Systems   BSc Medical Sciences   BSc Microbiology   BSc Information Technology Information and Knowledge Systems   BSc Microbiology   BSc Nutrition   BSc Zoology   BSc Zoology   BSc Computer Science) Computer Science   BScAgric Agricultural Economics: Agribusiness Management   BScAgric Animal Science   BScAgric Animal Science and Technology   BScAgric Plant Science and Technology   BScAgric Podo Science Veterinary Science   BScAgric P



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

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	termino	loav	180	(MTL	180)
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Qualification	Undergraduate
Module credits	12.00
Programmes	BChD Dentistry BCur Nursing Science BOccTher Occupational Therapy BRad Diagnostics BSportSci BSportSci BVeterinary Science Veterinary Science MBChB Medicine
Service modules	Faculty of Health Sciences Faculty of Natural and Agricultural Sciences Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Double Medium
Academic organisation	Ancient Languages and Cultures
Period of presentation	Semester 1 and Semester 2

#### Module content

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



# Medical nursing 120 (MVP 120)

Qualification	Undergraduate
Module credits	6.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	1.5 lectures per week, 10 clinical practicals per semester
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Undergraduate
Module credits	74.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	Semester 2: 7 clinical weeks per semester, Semester 1: 2 clinical weeks per semester, Semester 1: 6 lectures per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Undergraduate
Module credits	16.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	Semester 1: 25 clinical practicals per semester, 1 clinical week per semester, Semester 1: 3 lectures per week
Language of tuition	English



# Academic organisation 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.

# **Ophthalmology 700 (OFM 700)**

Qualification	Postgraduate
Module credits	30.00
Programmes	BVeterinary Science (Hons) Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	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	400.00
Programmes	MVeterinary Medicine Ophthalmology
Prerequisites	BVScHons with ANG 774, FAK 877, FSL 788 and PAT 808.
Language of tuition	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	MVeterinary Medicine Ophthalmology
Prerequisites	ANG 774, FAK 877, FSL 788 and PAT 808.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

# One health: basic concepts 801 (OHB 801)

Qualification Post	tgraduate
Module credits 12.0	00
Programmes MSc	c Tropical Animal Health (Coursework)
Language of tuition Eng	lish
Academic organisation Vete	erinary Tropical Diseases
Period of presentation Sem	nester 1

## Module content

#### (compulsory)

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	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	400.00



Programmes	MVeterinary Medicine Pathology (Coursework)
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

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

## Pathology: Wildlife 806 (PAT 806)

Qualification	Postgraduate
Module credits	28.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	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)**

Qualification	Postgraduate
Module credits	28.00
Programmes	BVeterinary Science (Hons) Veterinary Science MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year
Module content	

#### **Module content**

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

# **Ophthalmological pathology 808 (PAT 808)**

Qualification	Postgraduate
Module credits	20.00
Programmes	BVeterinary Science (Hons) Veterinary Science MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year
Module content	

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



# Mechanisms of disease 871 (PAT 871)

Qualification	Postgraduate
Module credits	20.00
Programmes	BVeterinary Science (Hons) Veterinary Science MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Language of tuition	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	MVeterinary Medicine Pathology (Coursework)
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

# Laboratory animal science 800 (PFK 800)

Qualification	Postgraduate
Module credits	400.00
Programmes	MVeterinary Medicine Laboratory Animal Science
Prerequisites	VRM 812 and a research project.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year



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	130.00
Programmes	MVeterinary Medicine Laboratory Animal Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

## Porcine health and production 420 (PHP 420)

Qualification	Undergraduate
Module credits	5.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Semester 2

#### Module content

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

## Applied porcine health and production 650 (PHP 650)

Qualification	Undergraduate
Module credits	6.00
Prerequisites	No prerequisites.
Contact time	Yes, 1.5 practicals per week
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year
Module content	

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



# Poultry health and production 800 (PHP 800)

Qualification	Postgraduate
Module credits	400.00
Programmes	MVeterinary Medicine Poultry Diseases (Coursework)
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year
Module content	

Advanced training in poultry health and production.

## Poultry health and production 871 (PHP 871)

Qualification	Postgraduate
Module credits	32.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

#### Module content

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

# Physics for biology students 131 (PHY 131)

Qualification	Undergraduate
Module credits	16.00



Programmes	BChD DentistryBDietetics DieteticsBEd Senior Phase and Further Education and Training TeachingBPhysT PhysiotherapyBSc BiochemistryBSc Biological SciencesBSc BiotechnologyBSc EcologyBSc Food ScienceBSc GeneticsBSc Human GeneticsBSc Human PhysiologyBSc Human PhysiologyBSc Kolical SciencesBSc Kuthan PhysiologyBSc Human SeneticsBSc Human SeneticsBSc Human SeneticsBSc Human SeneticsBSc Human SeneticsBSc Human ScienceBSc Medical SciencesBSc Medical SciencesBSc Matter ScienceBSc Agric Animal ScienceBScAgric Animal ScienceBScAgric Animal Science and TechnologyBScAgric Plant PathologyBScAgric Option: Applied Plant and Soil SciencesBScAgric Plant PathologyBSportSci BSportSciBVeterinary Science Veterinary ScienceBKAB Medicine
Service modules	Faculty of Education Faculty of Health Sciences Faculty of Veterinary Science
Prerequisites	Refer to Regulation 1.2: A candidate must have passed Mathematics with at least 50% in the Grade 12 examination
Contact time	1 practical per week, 4 lectures per week, 1 discussion class per week
Language of tuition	Both Afr and Eng
Academic organisation	Physics
Period of presentation	Semester 1

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.

# Poultry health and production 420 (PLY 420)

Qualification	Undergraduate
Module credits	5.00
Programmes	BVeterinary Science Veterinary Science



Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Semester 2

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	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	MVeterinary Medicine Poultry Diseases (Coursework)
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

# Qualitative research methods 870 (QHR 870)

Qualification	Postgraduate
Module credits	10.00
Programmes	MSc Clinical Epidemiology MSc Epidemiology MSc Option: Veterinary Public Health MSc Public Health



Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	School of Health Syst & Public
Period of presentation	Year

# Radiography 200 (RAV 200)

Qualification	Undergraduate
Module credits	12.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	Semester 2: 1 clinical week per semester, Semester 1: 25 clinical practicals per semester, Semester 1: 3 lectures per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	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)

Qualification	Postgraduate
Module credits	40.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	A BVSc, a four year BSc in Agriculture (Animal Science), Microbiology, Zoology or an equivalent degree
Contact time	1 seminar per week, 1 discussion class per week
Language of tuition	English
Academic organisation	Production Animal Studies



## Period of presentation 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)

Qualification	Postgraduate
Module credits	90.00
Programmes	MSc Option: Ruminant Health (Coursework)
Prerequisites	A BVSc, a four year BSc in Agriculture (Animal Science), Microbiology, Zoology or an equivalent degree
Contact time	20 Contact sessions
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year
Module content	

Mini-dissertation

## Small animal medicine and surgery 400 (SAS 400)

Qualification	Undergraduate
Module credits	50.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	13 lectures per week S2, 9 lectures per week S1, 15 practicals per year
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

#### Module content

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



# Communication in health 871 (SCC 871)

Qualification	Postgraduate
Module credits	10.00
Programmes	MSc Option: Veterinary Public Health
Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Contact time	1 practical per week, 16 lectures per week
Language of tuition	English
Academic organisation	School of Health Syst & Public
Period of presentation	Year

# Selected infectious diseases: Pigs 815 (SID 815)

Qualification	Postgraduate
Module credits	15.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2

#### **Module content**

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

# Small stock health and production 510 (SSH 510)

Qualification	Undergraduate
Module credits	25.00
Programmes	BVeterinary Science Veterinary Science
Contact time	6 lectures per week, 1 other contact session per week
Language of tuition	English



Period of presentation Semester 1

#### Module content

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

# Applied small stock health and production 650 (SSH 650)

Qualification	Undergraduate
Module credits	12.00
Prerequisites	No prerequisites.
Contact time	2.8 practicals per week, Yes
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year
Module content	

Practical instruction on course matter dealt with in SSH 601.

# Small stock health 801 (SSH 801)

Qualification	Postgraduate	
Module credits	40.00	
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases	
Contact time	1 discussion class per week	
Language of tuition	English	
Academic organisation	Production Animal Studies	
Period of presentation	Year	



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)

Qualification	Postgraduate
Module credits	9.00
Programmes	MSc Tropical Animal Health (Coursework)
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	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)

Qualification	Postgraduate
Module credits	9.00
Programmes	MSc Tropical Animal Health (Coursework)
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	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)

Qualification	Postgraduate
Module credits	270.00



Programmes	MVeterinary Medicine Toxicology
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

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

## Veterinary toxicology: Organ/systems toxicology 801 (TOK 801)

Qualification	Postgraduate
Module credits	30.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Toxicology MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

#### Module content

The objective of this module is to provide advanced training in veterinary toxicology, including plant poisening 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.

# Mini-dissertation: Toxicology 890 (TOK 890)

Qualification	Postgraduate
Module credits	90.00
Programmes	MVeterinary Medicine Toxicology
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year



# Veterinary toxicology 300 (TOX 300)

Qualification	Undergraduate	
Module credits	14.00	
Programmes	BVeterinary Science Veterinary Science	
Prerequisites	No prerequisites.	
Contact time	3 lectures per week	
Language of tuition	English	
Academic organisation	Paraclinical Sciences	
Period of presentation	Year	

## Module content

General principles of veterinary toxicology, with emphasis on the relevant factors and circumstances contributing to poisoning; advanced toxicology with regard to inorganic and organic compounds, fungi, cyanobacteria, plants, rodenticides, zootoxins, etc.

Plant poisonings, mycotoxicoses and inorganic and organis 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)

Qualification	Postgraduate
Module credits	30.00
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	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)

Qualification	Undergraduate
Module credits	6.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	10 clinical practicals per semester, 1.5 lectures per week



Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 2

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)

Qualification	Undergraduate
Module credits	12.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	Semester 1: 25 clinical practicals per semester, Semester 2: 1 clinical week per semester, Semester 1: 3 lectures per week
Language of tuition	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	BVeterinary Science Veterinary Science University Diploma Veterinary Nursing
Language of tuition	Double Medium
Academic organisation	Vet Sc Dean's Office
Period of presentation	Year

## Veterinary comparative anatomy 200 (VCA 200)

Qualification	Undergraduate
Module credits	38.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	Semester 1: 9 lectures per week, Semester 2: 11 lectures per week



Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

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	BVeterinary Science Veterinary Science
Prerequisites	All modules up to and including the 9th semester of the BVSc curriculum.
Contact time	40 hours per week, Yes
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Semester 2

#### Module content

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

# Veterinary core practice 602 (VCP 602)

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



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)

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

## Module content

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

# Veterinary microbiology 210 (VEM 210)

Qualification	Undergraduate
Module credits	6.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	8 discussion per day over 1 day, 2 discussion per day over 1 day, 2 lectures per day over 4 days
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1



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

# Veterinary elective practice 601 (VEP 601)

Qualification	Undergraduate
Module credits	40.00
Programmes	BVeterinary Science Veterinary Science
Contact time	Yes
Language of tuition	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	40.00
Programmes	BVeterinary Science Veterinary Science
Contact time	Yes
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 1



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	40.00
Programmes	BVeterinary Science Veterinary Science
Contact time	Yes
Language of tuition	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)

Qualification	Undergraduate
Module credits	16.00
Programmes	University Diploma Veterinary Nursing
Prerequisites	No prerequisites.
Contact time	6 lectures per week, 3 practicals per week
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Semester 1



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)

Qualification	Undergraduate
Module credits	23.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	3 lectures per week, 4 times per year
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

#### Module content

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

## Veterinary immunology 220 (VIM 220)

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

#### **Module content**

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

## Veterinary infectious diseases 300 (VIP 300)

Qualification	Undergraduate
Module credits	14.00



PrerequisitesNo prerequisites.Contact time3 discussion classes per week over 5 weeks, 3 lectures per week over 23 weeksLanguage of tuitionEnglishAcademic organisationVeterinary Tropical DiseasesDerival of measurationYear	Programmes	BVeterinary Science Veterinary Science
Language of tuitionEnglishAcademic organisationVeterinary Tropical Diseases	Prerequisites	No prerequisites.
Academic organisation Veterinary Tropical Diseases	Contact time	3 discussion classes per week over 5 weeks, 3 lectures per week over 23 weeks
	Language of tuition	English
Devied of avecestation Very	Academic organisation	Veterinary Tropical Diseases
Period of presentation rear	Period of presentation	Year

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 physicochemical 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)

Qualification	Postgraduate
Module credits	50.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Veterinary Industrial Pharmacology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pharmacology MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Vildlife Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year



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	100.00
Programmes	MSc Veterinary Industrial Pharmacology (Coursework)
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

## Pig herd health 800 (VKH 800)

Qualification	Postgraduate
Module credits	400.00
Programmes	MVeterinary Medicine Pig Herd Health
Prerequisites	No prerequisites.
Language of tuition	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
Module credits	90.00
Programmes	MVeterinary Medicine Pig Herd Health
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies



#### Period of presentation Year

#### Animal science 120 (VKU 120)

Qualification	Undergraduate
Module credits	8.00
Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Animal and Wildlife Sciences
Period of presentation	Semester 2
Madula contant	

#### Module content

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

## Introduction to animal nutrition 122 (VKU 122)

Qualification	Undergraduate
Module credits	8.00
Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Animal and Wildlife Sciences
Period of presentation	Semester 2

#### Module content

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

#### Animal science 210 (VKU 210)

Qualification	Undergraduate
Module credits	12.00
Programmes	BVeterinary Science Veterinary Science
Service modules	Faculty of Veterinary Science
Contact time	2 lectures per week, 1 practical per week
Language of tuition	English
Academic organisation	Animal and Wildlife Sciences



#### Period of presentation Semester 1

#### Module content

Origin and domestication of farm and companion animals. The ecological environment in which animal production and development is practised. Animal ecological factors that influence regional classification. Livestock species, breeds and breed characterisation and genetic variation. Basic principles of nutrition, physiology, breeding and production. Applied principles of livestock production, production management and systems (large livestock, small stock, pigs and poultry), organisation of the livestock industry and relevant legislation. Animal handling. Practical work includes identification and classification of different breeds of livestock, as well as the general care and handling of farm stock.

#### Animal science 220 (VKU 220)

Qualification	Undergraduate
Module credits	12.00
Programmes	BVeterinary Science Veterinary Science
Service modules	Faculty of Veterinary Science
Prerequisites	VKU 210 GS of TDH
Contact time	1 practical per week, 2 lectures per week
Language of tuition	English
Academic organisation	Animal and Wildlife Sciences
Period of presentation	Quarter 2

#### Module content

Livestock ecology, interaction between genotype and environment. Production regions and systems. Animal ecological factors that influence regional classification. Animal ecological factors to be considered in production factors, planning and management of different livestock production systems. Applied principles of livestock production, production management and systems (large livestock, small stock, pigs and poultry). Conservation farming and adapted farming and management systems; environmental conservation. Practical work will consist of compulsory farm practical during vacation after the 1st year and or during the 2nd year of studyin order to understand different animal production systems as well as the general care and handling of farm stock.

Undergraduate
6.00
BVeterinary Science Veterinary Science
Faculty of Veterinary Science
No prerequisites.
2 lectures per week
English
Animal and Wildlife Sciences

## Animal science 222 (VKU 222)



## Period of presentation Semester 2

#### Module content

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

## Applied molecular biology 816 (VMB 816)

Qualification	Postgraduate
Module credits	9.00
Programmes	MSc Tropical Animal Health (Coursework)
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2

#### Module content

Skills training (elective)

Theoretical and practical study in the principles and applications of PCR, cloning and DNA sequencing techniques.

## One health 510 (VOH 510)

Qualification	Undergraduate
Module credits	7.00
Programmes	BVeterinary Science Veterinary Science
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1

#### Module content

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

## Veterinary physiology and histology 200 (VPH 200)

Undergraduate
33.00
BVeterinary Science Veterinary Science
No prerequisites.



Contact time	Semester 2: 9 lectures per week, Semester 1: 8 lectures per week	
Language of tuition	English	
Academic organisation	Anatomy and Physiology	
Period of presentation	Year	

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)

Qualification	Undergraduate
Module credits	14.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	3 lectures per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

#### Module content

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

## Veterinary public health 510 (VPH 510)

Qualification	Undergraduate
Module credits	14.00
Programmes	BVeterinary Science Veterinary Science
Contact time	6 lectures per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Semester 1



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 Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Public Health MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Contact time	10 practicals per week
Language of tuition	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)

Qualification	Postgraduate
Module credits	40.00



Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Public Health MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Contact time	10 practicals per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

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)

Qualification	Postgraduate
Module credits	40.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Public Health MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.



Contact time	10 practicals per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

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.

Qualification	Postgraduate
Module credits	40.00
Programmes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Public Health MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Laboratory Animal Science MVeterinary Medicine Pig Herd Health MVeterinary Medicine Poultry Diseases (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Veterinary Public Health (Coursework) MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Contact time	10 practicals per week
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

## Veterinary public health: Environmental health and biosecurity 884 (VPH 884)



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 carcases, 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	80.00
Programmes	MSc Option: Veterinary Public Health
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year
Module content	
Mini-dissertation	

#### Veterinary professional life 120 (VPL 120)

Qualification	Undergraduate
Module credits	3.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 2



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)

Qualification	Postgraduate
Module credits	3.00
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1

#### Module content

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

## Veterinary professional life 200 (VPL 200)

Qualification	Undergraduate
Module credits	7.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	9 lectures per week over 4 days
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

#### **Module content**

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

#### Veterinary professional life 300 (VPL 300)

Qualification	Undergraduate
Module credits	10.00
Programmes	BVeterinary Science Veterinary Science



Prerequisites	No prerequisites.
Contact time	2 lectures per week over 28 weeks, 1 discussion class per week over 7 weeks
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

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)

Qualification	Undergraduate
Module credits	11.00
Programmes	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	2 lectures per week over 28 weeks
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

#### Module content

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

#### Veterinary business management 510 (VPL 510)

Qualification	Undergraduate
Module credits	10.00
Programmes	BVeterinary Science Veterinary Science
Contact time	3 practicals per week
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Semester 1



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)

Qualification	Postgraduate	
Module credits	20.00	
Programmes	MVeterinary Medicine Veterinary Public Health (Coursework)	
Prerequisites	No prerequisites.	
Language of tuition	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 preparation and presenting of a research protocol.

#### Research methodology 812 (VRM 812)

Qualification	Postgraduate
Module credits	9.00



Progra	ammes	MSc Option: Ruminant Health (Coursework) MSc Option: Veterinary Epidemiology (Coursework) MSc Option: Veterinary Reproduction (Coursework) MSc Tropical Animal Health (Coursework) MSc Veterinary Industrial Pharmacology (Coursework) MSc Veterinary Science MVeterinary Medicine Anaesthesiology (Coursework) MVeterinary Medicine Bovine Medicine (Coursework) MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Cattle Herd Health MVeterinary Medicine Clinical Laboratory Diagnostics MVeterinary Medicine Equine Medicine (Coursework) MVeterinary Medicine Equine Medicine (Coursework) MVeterinary Medicine Equine Surgery MVeterinary Medicine Equine Surgery MVeterinary Medicine Pharmacology MVeterinary Medicine Pig Herd Health MVeterinary Medicine Pig Herd Health MVeterinary Medicine Pig Herd Health MVeterinary Medicine Small Animal Medicine (Coursework) MVeterinary Medicine Small Animal Surgery (Coursework) MVeterinary Medicine Small Stock Herd Health MVeterinary Medicine Toxicology MVeterinary Medicine Widlife Diseases
Langu	age of tuition	English
Acade	mic organisation	Vet Sc Dean's Office
Dest		

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	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	4 lectures per week, 2 practicals over 10 weeks
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year



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	BVeterinary Science Veterinary Science
Prerequisites	No prerequisites.
Contact time	10 practicals per year, 4 lectures per week
Language of tuition	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.

## Mini-dissertation 890 (VTS 890)

Qualification	Postgraduate
Module credits	100.00
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

## Veterinary public health 800 (VVD 800)

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Qualification	Postgraduate
Module credits	300.00
Programmes	MVeterinary Medicine Veterinary Public Health (Coursework)
Prerequisites	No prerequisites.
Language of tuition	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 895 (VVD 895)

Qualification	Postgraduate
Module credits	100.00
Programmes	MVeterinary Medicine Veterinary Public Health (Coursework)
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

## **Dissertation: Veterinary tropical diseases 801 (VWE 801)**

Qualification	Postgraduate
Module credits	240.00
Programmes	MSc Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

## **Dissertation: Anatomy and physiology 802 (VWE 802)**

Qualification	Postgraduate
Module credits	240.00
Programmes	MSc Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Anatomy and Physiology
Period of presentation	Year

## **Dissertation: Companion animal clinical studies 803 (VWE 803)**

Qualification	Postgraduate
Module credits	240.00
Programmes	MSc Veterinary Science



Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

## **Dissertation: Paraclinical sciences 804 (VWE 804)**

Qualification	Postgraduate
Module credits	240.00
Programmes	MSc Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

## **Dissertation: Production animal studies 805 (VWE 805)**

Qualification	Postgraduate
Module credits	180.00
Programmes	MSc Veterinary Science
Prerequisites	VRM 813
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

## Thesis: Veterinary tropical diseases 901 (VWE 901)

Qualification	Postgraduate
Module credits	360.00
Programmes	DVeterinary Science Veterinary Tropical Diseases PhD Veterinary Tropical Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Veterinary Tropical Diseases
Period of presentation	Year

## Thesis: Anatomy and physiology 902 (VWE 902)

Qualification	Postgraduate
Module credits	360.00



Programmes	DVeterinary Science Anatomy and Physiology PhD Anatomy and Physiology
Prerequisites	No prerequisites.
Language of tuition	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	DVeterinary Science Companion Animal Clinical Studies PhD Companion Animal Clinical Studies
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Companion Animal Clin Studies
Period of presentation	Year

## Thesis: Paraclinical sciences 904 (VWE 904)

Qualification	Postgraduate
Module credits	360.00
Programmes	DVeterinary Science Paraclinical Sciences PhD Paraclinical Sciences
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Paraclinical Sciences
Period of presentation	Year

## **Thesis: Production animal studies 905 (VWE 905)**

Qualification	Postgraduate
Module credits	360.00
Programmes	DVeterinary Science Production Animal Studies PhD Production Animal Studies
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year



## **Basic principles of pasture science 253 (WDE 253)**

Qualification	Undergraduate
Module credits	18.00
Programmes	BSc Biological Sciences BSc Chemistry BSc Environmental Sciences BSc Environmental and Engineering Geology BSc Geography BSc Geoinformatics BVeterinary Science Veterinary Science
Service modules	Faculty of Veterinary Science
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Plant Production and Soil Sc
Period of presentation	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)

Qualification	Postgraduate
Module credits	420.00
Programmes	MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Contact time	1 discussion class per week, 5 practicals per week, 1 seminar per week
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	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.

## Mini-dissertation: Wildlife diseases 890 (WSK 890)

Qualification	Postgraduate
Module credits	90.00



Programmes	MVeterinary Medicine Wildlife Diseases
Prerequisites	No prerequisites.
Language of tuition	English
Academic organisation	Production Animal Studies
Period of presentation	Year

# Mathematics 134 (WTW 134)

Qualification	Undergraduate
Module credits	16.00
Programmes	BCom Economics BEd Senior Phase and Further Education and Training Teaching BSc Biological Sciences BSc Biological Sciences BSc Biotechnology BSc Entomology BSc Entomology BSc Entomology BSc Environmental Sciences BSc Food Management (4 years) BSc Food Science BSc Geoentics BSc Geoentics BSc Geoinformatics BSc Geoinformatics BSc Human Genetics BSc Human Physiology BSc Information Technology Information and Knowledge Systems BSc Medical Sciences BSc Microbiology BSc Information Technology Information and Knowledge Systems BSc Medical Sciences BSc Microbiology BSc Nutrition BSc Plant Science BSc Zoology BScAgric Agricultural Economics: Agribusiness Management BScAgric Animal Science: Pasture Science BScAgric Animal Science: Pasture Science BScAgric Coption: Applied Plant and Soil Sciences BScAgric Plant Pathology BVeterinary Science Veterinary Science
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 .
Contact time	4 lectures per week, 1 tutorial per week
Language of tuition	Both Afr and Eng



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.

## Animal diversity 161 (ZEN 161)

Qualification	Undergraduate
Module credits	8.00
Programmes	BEd Senior Phase and Further Education and Training TeachingBSc Biological SciencesBSc Biological SciencesBSc BiotechnologyBSc ChemistryBSc EcologyBSc EntomologyBSc EntomologyBSc EntomologyBSc Environmental SciencesBSc Extended programme - Biological and Agricultural SciencesBSc GeneticsBSc GeographyBSc GeographyBSc Human GeneticsBSc Human PhysiologyBSc PhysicsBSc PhysicsBSc Plant ScienceBSc ZoologyBScAgric Animal ScienceBScAgric Option: Applied Plant and Soil SciencesBScAgric Plant PathologyBScAgric Plant Pathology<
Service modules	Faculty of Education Faculty of Veterinary Science
Prerequisites	MLB 111 GS or TDH
Contact time	2 lectures per week, fortnightly practicals
Language of tuition	Both Afr and Eng



Academic organisation Zoology and Entomology

Period of presentation Semester 2

#### Module content

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

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.