

**FACULTIES OF THE UNIVERSITY
OF PRETORIA**

HUMANITIES

NATURAL AND AGRICULTURAL SCIENCES

LAW

THEOLOGY

ECONOMIC AND MANAGEMENT SCIENCES

VETERINARY SCIENCE

EDUCATION

HEALTH SCIENCES

ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

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**FACULTY OF VETERINARY SCIENCE
ACADEMIC PERSONNEL AS ON 30 SEPTEMBER 2002**

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Karama, M., DVM(Lubumbashi) MMedVet(Hyg)(Pret).....	Senior Lecturer
Williams, J.H., BVSc(Pret).....	Senior Lecturer
Clift, S.J., BVSc(Pret)	Lecturer
Gehring, R., BVSc MMedVet(Pharm)(Pret).....	Lecturer
Naidoo, V., BVMCh(Medunsa).....	Lecturer
Ndudane-Tyumre,, N.T., BSc (Agric) BVMCh (Medunsa).	Lecturer
Steyl, J.C.A., BVSc(Pret).....	Lecturer

Department of Production Animal Studies

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Le Roux, C.D., BVSc(Pret) MSc(Stell)	Extraordinary Professor
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Bisschop, S.P.R., BVSc(Hons)(Pret)	Senior Lecturer
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Gerber, D., Dr Med Vet(Zürich) Dipl Am Coll Therio	Senior Lecturer
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Irons, P.C., BVSc(Pret) Dipl Am Coll Therio	Senior Lecturer
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Schulman, M.L., BVSc MMedVet(Gyn)(Pret).....	Senior Lecturer
Schultheiss, W.A., BVSc(Hons) MMedVet(Gyn)(Pret)	Senior Lecturer
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Thompson, P.N., BVSc MMedVet(Med)(Pret).....	Senior Lecturer
Wandrag, D.B.R., BVSc(Hons) MMedVet(Vet)PhD(Pret).....	Senior Lecturer
Botha, A.E., Dip Cur Anim THED(Pret)	Lecturer
Louw, M.E.,	Lecturer
Mokantla, E., BVMCh(Medunsa)	Lecturer
Songabe, T., BVMCh(Medunsa)	Lecturer
Campbell, M.C.O., BVSc(Pret) MBL(Unisa).....	Director

Department of Veterinary Tropical Diseases

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Boomker, J.D.F., MSc(Zool)(RAU) MMedVet(Parasit)(Pret) DVSc(Medunsa).....	Professor
Krecek, R.C., BSc(Florida) MS(East Texas State) DSc(Pret) MAP (Witwatersrand)	Professor
Penzhorn, B.L., BSc(Hons)(Pret) MAgric(Texas A&M) DSc(Wildlife Management) BVSc(Pret)	Professor
Stewart, C.G., BVMS(Edinburgh) BVSc(Hons)(Pret) MSc(London)	Emeritus Professor
Connor, R.J., MVSc(Liverpool) DVetMed(London)	Extraordinary Professor
Pearson, R.A., BSc(Hons)(Nottingham) PhD(Edinburgh)	Extraordinary Professor
Provost, A.R.J., Vet MSc(Paris)	Extraordinary Professor
Swanepoel, R., BVSc(Pret) DTVM PhD(Edinburgh).....	Extraordinary

	Professor
Thomson, G.R., BVSc(Pret) MSc(Birmingham) PhD(London)	Honorary Professor
Van Vuuren, M., MMedVet(Micro)(Pret)	Associate Professor
Venter, E.H., MSc(UOVS) PhD(Pret)	Associate Professor
Bryson, N.R., BSc(Hons)(Rhodes) MMedVet(Parasit)(Pret)	Senior Lecturer
Crafford, J.E., BVSc(Pret)	Senior Lecturer
Howell, P.G., BVSc DVSc(Pret)	Senior Lecturer
Picard, J.A., BVSc(Hons)(Pret)	Senior Lecturer
Schwan, E.V., MedVet(Hannover) MVSc(Liverpool) Dr MedVet(Hannover)	Senior Lecturer
Stoltz, W.H., BVSc(Pret)	Senior Lecturer

Centre for Equine Research

Guthrie, A.J., BVSc(Hons) MMedVet(Phys)(Pret) PhD(Louisiana State University)	Professor
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Wildlife Unit

Bertschinger, H.J., BVSc(Pret) Dr MedVet(Zürich).....	Professor
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Price Forbes Chair for Wildlife:

Bertschinger, H.J., BVSc(Pret) Dr MedVet(Zürich) (Acting Head) ...	Professor
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Student Administration

Snyman, H.C., Mrs. THED	Head
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GENERAL INFORMATION

The rules for degrees and diplomas here published are subject to change and may be amended prior to the commencement of the academic year in 2003.

Admission

Any person who wishes to register at the University for the first time, or after an interruption of studies, should apply or reapply for admission. Application for admission to all undergraduate programmes in the Faculty closes on 30 June.

BVSc degree programme

As from 2003, candidates who wish to be admitted to the BVSc degree programme, will be required to first complete the BSc(Veterinary Biology) degree offered by the University of Pretoria. They should register for BSc(Biological Sciences) in the first two years of study and for BSc(Veterinary Biology) in the third year of study.

Selection

(a) Current BVSc degree programme

- (i) Selection for the current BVSc degree programme takes place before admission to the second year of study, and **all** candidates who wish to be admitted to the programme must apply for selection on the grounds of their academic achievement in at least one year of university training in a scientific field of study. The last intake into the current programme will be in 2004.
- (ii) Candidates who wish to be admitted to the second year of study for the current BVSc degree programme in 2004 are therefore required to have completed modules at 100 level in **Chemistry** (one full year module, two semester modules or four quarter modules), **Physics** (one full year module, two semester modules or four quarter modules), **Zoology or Biology**, including a section in Zoology (one full year module, two semester modules or four quarter modules), as well as **another year module, two semester modules or four quarter modules** of their own choice. Candidates should apply before 30 June 2003 to be considered for selection/admission to the second year of study for the current BVSc degree programme in 2004.

NB: Only a limited number of vacancies are reserved for international candidates.

(b) New BVSc degree programme

Provisional selection will occur at the end of the second year of study in the BSc programme and final selection at the end of the third year of study of the BSc(Veterinary Biology) degree programme. Candidates should apply before 30 June of the year preceding the year in which admission is required.

(c) DCH(Vet) and DHA(Vet)

The closing date for application to study for these postgraduate diplomas is 15 October, as the modules are only offered if a prescribed minimum number of students apply for registration.

(d) University Diploma in Veterinary Nursing

Only a limited number of students will be admitted [consult V.9 (a)(i), (ii), (iii) and (iv)].

Statement of symbols

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

Medium of instruction

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

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

Bursaries and loans

Particulars of bursaries and loans are available on request.

Accommodation

Application for accommodation in the Onderstepoort residence should be submitted as part of the application form for admission as from 1 April of the preceding year.

Further details are available on request. Applications for accommodation in the residence at Onderstepoort will be considered only after admission to the BVSc degree/DipVetNurs diploma programme. Details concerning accommodation fees are available on request.

Academic Information Week

This week is presented annually for all new diploma and second-year veterinary students, and attendance is compulsory. Parents may attend the first day of the programme, details of which are obtainable from The Head: Student Administration, Faculty of Veterinary Science, University of Pretoria, Pretoria, 0002.

Prescribed books

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

Amendment of regulations and fees

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

Dress code

Special instructions regarding dress must be adhered to. Details will be furnished when students are notified that they have been selected for the programme.

Excursions

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

Definition of terms

The following terms are generally used in all faculties.

academic year: the duration of the academic year, which is determined by the University Council

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

module: a defined academic offering identified by a specific module code offered over ½, 1 or 2 semesters

module code: consists of an equal number of capitals and digits, which indicate the name of the module, the year of study, the period of study and the level of the module.

A module code consists of three capital letters and three digits, e.g. ANA 100 for Anatomy.

- The **first digit** indicates the year of study in which the module is generally taken or the academic year in which it is offered for the first time, for example 1 = 100 level, 2 = 200 level, 3 = 300 level, 7 = honours level, 8 = master's level and 9 = doctoral level.
- The **second digit** has the following meaning: 0 or 7 = year module, 1 or 3 or 5 = first-semester module, 2 or 4 or 6 = second-semester module, 8 = semester module offered in the first and/or second semester, 9 = indefinite
- The **third digit** differentiates between modules at the same level of which the content differs, e.g. ANA 703 and ANA 704 (Anatomy 703 and Anatomy 704).

credit (or credit value): a value unit (credit) accredited to a module in relation to the contact time and time required to complete the module

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

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

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

extended study programme: a study programme for the diploma that is completed over a longer period than the minimum duration of the diploma

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

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

SAQA: South African Qualifications Authority

semester module: a module that extends over one semester

semester/year mark: the mark awarded to a student on the basis of tests, class-work, practical work or any other work which was done in a particular module
syllabus: the division of the study material for a specific module
year module: a module that extends over one year (two semesters)

REGULATIONS AND CURRICULA: DEGREE AND DIPLOMA PROGRAMMES

1. Admission to undergraduate study

1.1 General

1.1.1 To register for a first bachelor's degree at the University, a candidate should, apart from the required Grade 12 exemption certificate, comply with the particular requirements prescribed in the admission procedures and the faculty regulations of the respective faculties and departments for admission to particular modules and programmes.

1.1.2 The following persons may also be considered for admission:

- (i) A candidate who is in possession of another certificate which is accepted by the University as equivalent to the required Grade 12 exemption certificate.
- (ii) A candidate who is a graduate from another tertiary institution or has been granted the status of a graduate of such an institution.

Note: A conditional exemption certificate does not qualify a candidate for admission to bachelor's degree study. However, in certain circumstances some of the faculties do accept a certificate of conditional exemption on the basis of mature age. Candidates are advised to contact the specific faculty administration in this regard.

1.1.3 The Senate may limit the number of students allowed to register for a programme, in which case the Dean may, at his or her own discretion, select from the students who qualify for admission those who may be admitted.

1.1.4 Subject to faculty regulations and the stipulations of G.62, a candidate will only be admitted to postgraduate bachelor's degree studies, if he or she is already in possession of a recognised bachelor's degree.

2. Admission to diploma studies

A student will only be admitted to an undergraduate diploma programme if he or she complies with the specific requirements for admission to specific modules and programmes as stipulated in the admission procedures and faculty regulations of the various faculties and departments.

3. Language proficiency

It is expected of every new undergraduate student who wishes to register at the University of Pretoria, to complete a language proficiency test. Based on the results of this test, the student will be enrolled in language development modules that have to be passed before the degree/diploma will be awarded. In exceptional

circumstances the test may be substituted by other modules as approved by the Dean.

4. Computer proficiency

It is expected of every new undergraduate student to provide proof of computer proficiency. This can be achieved through successful completion of prescribed tests or successful completion of prescribed modules.

5. Registration for a particular year of study

At the beginning of an academic year, a student registers for all the modules he or she intends taking in that particular year (whether these be first-semester, second-semester or year modules).

6. Module credits for unregistered students

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

7. Examination and pass requirements

A final mark of at least 50% is required to pass a module.

7.1 Subminima in examinations

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

7.2 Examinations (Reg G.12)

The examinations for modules offered in the first semester, take place in May/June, while all other examinations (second-semester modules and year modules) take place in October/November.

7.3 Ancillary examinations (Reg G.12.3)

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

7.4 Re-marking of examination papers (also consult Reg G.14)

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

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 14 calendar days after the announcement of the results.** The examiner will be appointed by the Head of the Department concerned. Re-marking of oral examinations is not allowed.

7.5 Supplementary examinations (Reg G. 12.4)

Supplementary examinations in first-semester modules take place as provided for in Reg V.1(d)(ii)(aa), V.9(e)(v) and V.9(j)(i), while those for year modules, take place before the beginning of the first semester of the following year, or otherwise as stipulated in the study guide for that module.

7.6 Statutory requirements

Registration requirements contained in V.1 (a)(3) and (4) and V.9(a)(v) and (vi).

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

The following degree and diploma programmes are conferred in the Faculty (minimum period of study in brackets):

- (a) Bachelor of Veterinary Science - BVSc (6 years)(current curriculum)
- (b) Bachelor of Veterinary Science (Honours) – BVSc(Hons) (1 year)
- (c) Master of Veterinary Medicine – MMedVet (2 years)
- (d) Magister Scientiae (Veterinary Science) – MSc (2 years)
- (e) Philosophiae Doctor – PhD (2 years)
- (f) Doctor of Veterinary Science - DVSc
- (g) Postgraduate Diploma in Public Health – DCH(Vet) (2 years)
(Under review – not presented in 2003)
- (h) Postgraduate Diploma in Health Administration – DHA(Vet) (2 years)
(Under review – not presented in 2003)
- (i) University Diploma in Veterinary Nursing – DipVetNurs (2 years)

Students who take a module offered by another faculty, must familiarise themselves with the requirements for admission to the module in question as well as the regulations governing subminima in examinations and supplementary examinations, etc.

I. BACHELOR'S DEGREE

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

V.1 BACHELOR OF VETERINARY SCIENCE (BVSc) (CODE 08130001)

(a) Admission

NB:

- 1. Requirements for admission are as stipulated in General Regulation G.1.
- 2. Candidates are subjected to selection (see General Information).

3. Each student must apply immediately after first admission to the Registrar of the South African Veterinary Council for registration as a student in veterinary science. Registration is compulsory and must be renewed annually for the duration of the study.
4. After the degree has been conferred, graduates are required to register with the South African Veterinary Council as veterinarians before they may practise in South Africa in this capacity.

(b) Duration of study

Six years of full-time study (current curriculum).

(c) General

- (i) General Regulation G.10.1 concerning satisfactory preparation and payment of module fees, applies to examination, promotion and attendance modules. Attendance of all practical classes, clinics (including junior 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 the Department concerned, and as set out in the annual study guide. In terms of General Regulation G.10.4, a semester mark or year mark of at least 50% must be obtained in attendance modules. The stipulations of General Regulations G.12.1 to G.12.5 also apply.
- (iv) A student must pass all the modules of the respective previous years of study in order to be promoted to the third, fourth and fifth year of study, as well as to the clinical rotations.
- (v) A student who fails a module or modules in a year of study, has to repeat, subject to the stipulations of General Reg. G11.2(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 lectures and practical periods have to be attended and that a year/semester mark of at least 50% has to be obtained through the completion of all scheduled assessments, tests, tasks, etc, in order to obtain exemption from the examination in those modules at the end of the repeat semester/year. Examinations are compulsory in all the modules previously failed, as well as in those modules in which exemption from the examination has not been obtained. If a student fails any of these examinations (or supplementary examination), he or she will not be allowed to continue their studies in the Faculty [see V.1(c)(x)].
- (vi) No limit is placed on the number of modules in which supplementary examinations may be done, except in the sixth year of study where the limit on the number of permitted supplementary examinations is valid. The nature and date of supplementary examinations are determined by the Dean in consultation with the Head of the Department.
- (vii) The Dean 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.

- (viii) Subject to General Regulation G.12.4.3, a minimum of 50% is required to pass a supplementary examination. The semester or year mark is not taken into account.
- (ix) In addition to the stipulations of General Regulation G.3.2(b), a student will not be allowed to repeat the same year of study twice or two years of study consecutively. A student who fails one or more modules in the second year of study, is subjected to selection once again. Not more than 12 students will be re-admitted to the second year of study.
- (x) A student who has to discontinue his or her studies in terms of stipulations (v) and (ix) above, may request the Dean in writing to consider his or her application for 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 Council.

(d) Curriculum

Total number of SAQA credits: 1120

(i) First year of study

As stipulated in General Information, (a)(l) and (ii) on page 5 of this publication.

(ii) Second year

- | | | |
|-----|---------|--|
| (1) | ANA 213 | Anatomy 213 |
| (2) | ANA 224 | Anatomy 224 |
| (3) | HIS 200 | Histology 200 |
| (4) | PHC 200 | Physiology and Physiological Chemistry 200 |
| (5) | ECP 200 | Ecology and Pasture Science 200 |
| (6) | AHG 200 | Animal Handling 200 |

(aa) Supplementary examinations

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

(iii) Third year of study

- | | | |
|-----|---------|------------------------------------|
| (1) | APH 301 | Applied Physiology 301 |
| (2) | VPE 301 | Animal Production and Ethology 301 |
| (3) | IMI 300 | Immunology and Microbiology 300 |
| (4) | VTP 300 | Veterinary Parasitology 300 |
| (5) | GPH 300 | General Pharmacology 300 |
| (6) | TOX 300 | Toxicology 300 |
| (7) | GOP 300 | General and Organ Pathology 300 |
| (8) | ICS 300 | Introductory Clinical Studies 300 |

Second semester

- (aa) Extra duties on a rotational basis for cattle, horses, sheep, goats, dogs, cats and pigs as specified in the study guide for Animal Production and Ethology 301.
- (bb) Practical experience during holidays before the end of the third year of study, preferably in a production animal environment, as prescribed in the study guide of Animal Production and Ethology 301.

(iv) **Fourth year of study**

- (1) SAC 470 Small Animal Clinical Studies 470
- (2) BHP 470 Bovine Health and Production 470

(v) **Fifth year of study**

- (1) AST 500 Anaesthesiology 500
- (2) ECS 500 Equine Clinical Studies 500
- (3) PHP 500 Porcine Health and Production 500
- (4) PPR 500 Poultry Health and Production 500
- (5) VBE 500 Veterinary Business Management and Ethics 500
- (6) SSH 500 Small Stock Health and Production 500
- (7) PHE 500 Veterinary Public Health and Applied Epidemiology 500

(8) **Electives**

One of the following examination modules must be passed:

- CBF 510 Cage Birds and Fish Diseases 510
- RMD 510 Research Methodology 510
- WOC 510 Wildlife, Ostrich and Crocodile Health 510
- Two formal language modules offered by the Faculty of Humanities (as approved by the Dean).

(9) **Attendance Module**

DIP 520 Diagnostic Pathology 520

- (aa) 10 Working days of Junior Clinics in the Veterinary Academic Hospital.

(vi) **Sixth year of study**

- (1) BHP 600 Applied Bovine Health and Production 600
- (2) SSH 600 Applied Small Stock Health and Production 600
- (3) PHP 600 Applied Porcine Health and Production 600
- (4) PPR 600 Applied Poultry Health and Production 600
- (5) SAC 600 Applied Small Animal Clinical Studies 600
- (6) ECS 600 Applied Equine Clinical Studies 600
- (7) PHE 600 Applied Veterinary Public Health 600

(aa) **Supplementary examinations**

A student in the sixth year of study may be granted a maximum of two supplementary examinations, after having worked full-time in the department concerned for a period determined by the Head of the Department and with the Dean's approval.

(bb) **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 at the end of the following semester. If he or she fails the latter, the Dean will determine when a further examination may be taken.

(cc) **Repetition of the sixth year of study**

A student who has failed more than two modules, must repeat the last two semesters of the curriculum in the modules concerned, unless the Dean decides differently.

(dd) **Practical work**

Practical work must be done as follows and proof of satisfactory completion must be submitted to the Head: Student Administration of the Faculty, prior to the commencement of the final examinations:

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

(ee) **Degree with distinction**

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

II. HONOURS DEGREE

V.2 BACHELOR OF VETERINARY SCIENCE (HONOURS) BVSc(Hons) (CODE 08240001)
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Also consult General Regulations G.16 to G.29.

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

(a) Requirements for admission

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

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

(b) Duration

The course has to be completed within two years following first registration for the degree in the case of full-time study, and within three years in the case of part-time study. The minimum duration is one year.

(c) Curriculum

Total number of SAQA credits: 180

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

MODULE NAME	MODULE CODE
GENERAL	
Biometry	BME 120
Draught Animal Power	DAP 771
Veterinary Research Methodology	VRM 781
DISCIPLINE-BASED	
Anaesthesiology:	
Anaesthesiology	ANE 771, 772
Anatomy/Histology:	
Anatomy	ANA 774, 779
Histology	HIS 700
Behaviour:	
Companion Animal Behaviour	CAH 700
Veterinary Behavioural Medicine	GEN 708
Clinical Pathology:	
Clinical Pathology	KPA 701, 702
Clinical Pathology C.S.	KPA 703
Epidemiology:	
Veterinary Epidemiology	EPI 751, 752, 753, 754
Infectious Diseases/Microbiology:	
African Epizootic Diseases	AEZ 781
Bacteriology	BAL 700
Immunology	IMM 700
Infectious Diseases: Public Health	IFS 776
Microbiology: Laboratory Diagnostic Series	MBG 781
Protozoal Diseases	PTS 700
Virology	VIR 700
Ophthalmology:	
Ophthalmology	OFT 700
Ophthalmology: Large Animals	OFT 702
Parasitology:	
Helminthology	HEL 700
Parasitology: Laboratory Diagnostic Series	PAR 781
Parasitology: Public Health	PAR 774
Veterinary Ectoparasitology	VEP 701
Pathology:	
Mechanisms of Disease	PAT 771
Necropsy Technique and Interpretation	PAT 707
Ophthalmological Pathology	PAT 708
Pathology	PAT 700
Reproductive Pathology	PAT 709
Pharmacology:	
Combined Clinical Pharmacology	FAR 777

Veterinary Industrial Pharmacology
Advanced Fundamentals of Pharmacology

FAR 710
FAR 776

Physiology:

Physiology
Reproductive physiology of animals

FSG 713, 787, 788
GSK 708

Surgery:

Surgery CHR 705,706

Toxicology:

Toxicology: Basic and Clinical Veterinary Toxicology TOK 701

Toxicology: Organic and Inorganic Poisons TOK 704

Toxicology: Phyto- and Mycotoxins TOK 703

Veterinary Public Health:

Veterinary Public Health VPH 781, 782, 783, 784

SPECIES-BASED

LARGE STOCK/SMALL STOCK

Anatomy ANA 704
 Beef Herd Health BKG 782
 Bovine Medicine GEN 705
 Bovine Medicine and Surgery GEN 704
 Bovine Medicine: Gastro Intestinal and Production Diseases BVM 701
 Bovine Medicine: Diseases of the liver, cardiovascular, respiratory and urinary system BVM 702
 Bovine Medicine: neurology, musculo-skeletal system, skin and appendages BVM 703
 Reproductive biology: Cattle GSK 709
 Clinical reproduction: Cattle GSK 710
 Clinical Pharmacology: Ruminants FAR 706
 Dairy Cattle Herd Health BKG 781
 Diagnostic Imaging: Ruminants DIM 773
 Infectious Diseases: Large Stock IFS 771
 Infectious Diseases: Small Stock IFS 773
 Parasitology: Large Stock PAR 772
 Parasitology: Small Stock PAR 773
 Pathology: Ruminants PAT 705
 Production Animal Management PAM 700
 Radiology: Ruminants DIM 785
 Small Stock Herd Health KKS 780
 Reproductive Biology: Small Stock GSK 711
 Clinical Reproduction: Small Stock GSK 712
 Ultrasound: Ruminants DIM 786

HORSES

Anatomy ANA 703
 Clinical Pharmacology: Horses FAR 707
 Diagnostic Imaging: Horses DIM 772
 Equine Medicine GEN 703

Reproductive Biology: Horses
Clinical Reproduction: Horses
Infectious Diseases: Horses
Pathology: Horses
Radiology: Horses

GSK 713
GSK 714
IFS 774
PAT 704
DIM 783

Surgery: Horses CHR 704
 Ultrasound: Horses DIM 784

LABORATORY ANIMALS

Laboratory Animal Science LAS 700
 Toxicology: Laboratory Toxicity Testing TOK 702
 Veterinary Research Methodology VRM 782

PIGS

Infectious Diseases: Pigs IFS 775
 Pathology: Pigs PAT 703
 Porcine Health and Production: Housing PHP 701
 Porcine Health and Production: Nutrition PHP 702

POULTRY

Poultry Health and Production PHP 771
 Poultry Nutrition PVV 700

SMALL ANIMALS

Anatomy ANA 705
 Clinical Pharmacology: Dogs and Cats FAR 775
 Diagnostic Imaging: Dogs and Cats DIM 771
 Infectious Diseases: Dogs and Cats IFS 772
 Ophthalmology: Small Animals OFT 701
 Pathology: Dogs and Cats PAT 702
 Radiology: Dogs and Cats DIM 781
 Small Animal Medicine GEN 702, 707
 Reproductive Biology: Dogs and Cats GSK 716
 Clinical Reproduction: Dogs and Cats GSK 717
 Surgery: Small Animals CHR 703
 Ultrasound: Dogs and Cats DIM 782

WILDLIFE

Drugs used in Wildlife and Exotic Species FAR 708
 Infectious Diseases: Wildlife IFS 777
 Parasitology: Wildlife PAR 775
 Pathology: Wildlife PAT 706
 Wildlife Diseases WSK 700
 Reproductive Biology: Wildlife GSK 717
 Clinical Reproduction: Wildlife GSK 718

See SYLLABI on p 29 for the number of credits awarded to these modules.

- (i) Where the honours degree precedes a master's degree, the modules chosen for

the honours degree programme must support the particular field of study for the prospective master's degree programme. The selection of modules is approved by the Dean, on the recommendation of the Head of the Department in which the study for the master's degree will be undertaken. Credits obtained will be recognised in the MMedVet Degree programme [see V.3(d)].

- (ii) If a candidate plans to register for an honours degree only, the selected modules are approved by the Dean, following consultation with the Heads of the Departments concerned.

(d) Registration

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

(e) Examinations

(Consult General Regulation G.26.1)

To determine whether a student passes the honours examination, the marks obtained in each module are calculated proportionately to the number of module credits: Provided that, should a student fail one 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 student fails to qualify for a supplementary examination, a special examination may be granted after one semester has lapsed.

- (i) A minimum examination mark of 50% is required in each of the modules where a semester or year mark is not required. However, where a semester or year mark is required, the latter will contribute 50% to the final mark. A subminimum of 40% is required in the examination and a final mark of at least 50% to pass the module. Instructions regarding requirements for semester, year or examination marks are published in the study guides, for the specific attention of students.
- (ii) To obtain the **degree with distinction**, a minimum of 60% is required in each module, as well as a proportionately calculated average of at least 75% for the degree as a whole.

III. MASTER'S DEGREES

V.3 MASTER OF VETERINARY MEDICINE (MMedVet)

Also consult General Regulations G.30 to G.44.

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

(a) Fields of study

The MMedVet degree is offered in the following fields of study. The total number of SAQA credits is indicated in respect of each specialisation field.

Field of study	SAQA Credits
(i) Anaesthesiology (Anaes)	685
(ii) Cattle Herd Health (Bov)	640
(iii) Clinical Laboratory Diagnostics (Clin Lab Diag)	480
(iv) Diagnostic Imaging (DiagIm)	626
(v) Laboratory Animal Science (LAS)	550
(vi) Medicine (Med)(Bov)	640
(vii) Medicine (Med)(Eq)	560
(viii) Medicine (Med)(Small Animals)	560
(ix) Ophthalmology (Ophth)	664
(x) Pathology (Path)	640
(xi) Pharmacology (Pharm)	462
(xii) Pig Herd Health(Suill)	620
(xiii) Poultry Diseases (Altil)	640
(xiv) Reproduction (Gyn)	630
(xv) Small Stock Herd Health (CaprOv)	600
(xvi) Surgery (Chir) (Eq)	797
(xvii) Surgery (Chir) (Small Animals)	822
(xviii) Toxicology (Tox)	480
(xix) Veterinary Ethology (VetEt)	640
(xx) Veterinary Public Health (Hyg)	620
(xxi) Wildlife Diseases (Fer)	650

(b) Admission

- (i) Subject to the stipulations of General Regulation G.62, a candidate must be in possession of the BVSc or an equivalent degree. In certain cases, the Head of the Department under which a specific field of study for the MMedVet falls, may require that a candidate first obtains a BVSc(Hons) degree [Reg. V.2(c)], with modules applicable to the particular MMedVet degree study. A minimum of 60% in each module may be required before a student may commence with studies for the MMedVet degree.
A student who wishes to commence studies for the MMedVet degree, and already has a BVSc(Hons) degree and complies with the requirements already mentioned, will retain credit for the modules concerned for a period of two years, unless the Head of Department decides otherwise.
- (ii) Furthermore, a Head of Department has the prerogative to require, in addition to the requirements of the said regulation, an evaluation of a student, which may include practical components, or the setting of special conditions. A student may also be required to pass a proficiency test in English (TOEFL) at an acceptable level.
- (iii) The number of students that can be admitted to the MMedVet degree programme annually, depends on the training capacity of a department and the number of available posts.

(c) Duration and attendance requirements

- (i) For candidates who are already in possession of the BVSc(Hons) degree with the applicable modules, the degree programme extends over at least two years, with a maximum duration of four years. If all the required modules have to be included in the MMedVet curriculum, the programme extends over a maximum of six years.
- (ii) Unless stipulated otherwise, the Dean must be satisfied that the candidates will have sufficient access to appropriate facilities and, where necessary, supervision by an appropriate person to complete the work required for the degree at a satisfactory level.
- (iii) Attendance requirements are determined in each individual case by the Dean (as recommended by the Head of the Department concerned).
- (iv) Candidates have to complete an acceptable module in Research Methodology successfully.

(d) Curricula

The modules required will in all instances be determined in consultation with the Head of the Department in which the proposed special field of study is offered. The number of credits of the applicable prescribed modules should not be less than 18 and not more than 24 [see V.2(c) and V.2(c)(i)]. If deemed necessary, modules and/or modules offered by other Faculties of the University of Pretoria may form part of the prescribed programme. Students will receive advanced training in the theoretical and practical aspects of the chosen field of study.

Special field of study	Degree code	Module code
Anaesthesiology	08250131	ANE 800
Cattle Herd Health	08250231	BKG 800
Clinical Laboratory Diagnostics	08250191	KDK 800
Diagnostic Imaging	08250142	DIM 870
Small Stock Herd Health	08250241	KKS 800
Laboratory Animal Science	08250211	PFK 800
Medicine: one of the following:		
Bovine Medicine	08250052	GEN 801
Equine Medicine	08250053	GEN 802
Small Animal Medicine	08250054	GEN 803
Ophthalmology	08250251	OFT 800
Pathology	08250101	PAT 800
Pharmacology	08251131	FAR 800
Pig Herd Health	08250182	VKH 800
Poultry Diseases	08250171	PHP 800
Reproduction	08250031	GSK 800
Surgery: One of the following:		
Equine Surgery	08251121	CHR 804
Small Animal Surgery	08250022	CHR 803
Toxicology	08251141	TOK 800

Veterinary Ethology	08250082	VET 800
Veterinary Public Health	08250041	VVD 800
Wildlife Diseases	08250221	WSK 800

(e) Conferment of degree

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

(f) Examinations

- (i) The examination(s) in the special field of study may be taken after a minimum period of two years.
- (ii) The nature and duration of the examination(s), which will test fully the theoretical knowledge as well as the practical skills of the student, is determined by the Head of the Department in which the chosen field of study is offered.
- (iii) A minimum examination mark of 50% is required in each of the theoretical and practical sections of the module where a semester or year mark is not required. However, in cases where a semester or year mark is awarded, the latter will contribute 50% to the final mark.

A subminimum of 40% is required in the examination, and a final mark of at least 50% to pass in the theoretical and the practical sections. Instructions in the study guide regarding semester, year and examination marks, are brought specifically to the attention of students.

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

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

(g) Dissertation

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

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

Earlier, related publications by the student may be bound with the dissertation, but may not substitute the complete text of the 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. The dissertation will be evaluated by an external examiner, who may not necessarily attend the final examination.

Together with the dissertation, a draft article based on the dissertation must be prepared for publication in an acknowledged journal and submitted, 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).

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

(h) Degree with distinction

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

V.4. MAGISTER SCIENTIAE (VETERINARY SCIENCE) (MSc)

Also consult General Regulations G.30 to G.44.

The MSc degree in Veterinary Science is a research degree.

(a) Requirements for admission

Subject to the stipulations of General Regulation G.62, a BSc(Hons), a four-year BSc(Agric), BVSc or equivalent degree is required.

Candidates who are accepted for the MSc degree programme have to complete an acceptable module in Research Methodology successfully. Supplementary prescribed work and attendance of certain modules at 700-level in which a pass mark in a test or examination has to be achieved, may be required of all candidates who apply for admission, but may not exceed 20 credits. If deemed necessary by the Head of Department, modules offered by other faculties of the University of Pretoria may form part of the prescribed programme. Candidates must register for these additional modules when initially registering for the MSc degree programme.

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

(b) Duration

The course extends over a minimum period of two years, and a maximum of four years.

(c) Field of study

Total number of SAQA credits: 240

The MSc degree programme is offered by the following departments:

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

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

(d) Conferment of degree

The MSc degree is conferred by virtue of the successful completion of a dissertation (VWE 890). Regulations V.3(g)(i) and (ii) apply *mutatis mutandis*. Together with the dissertation a student must submit at least one draft article for publication in an acknowledged journal, failing which the degree will not be conferred. The draft article must be based on the research for the dissertation and must be acceptable to the supervisor and meet subsidy requirements. (Also consult General Regulations G.57 to G.61 as well as Reg.V.3 (g)(ii) and (iii) concerning the content, submission and editing of the dissertation.)

(e) Pass with distinction

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

IV. DOCTORATES

V.5. PHILOSOPHIAE DOCTOR (PhD)

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

(a) Admission requirements

Subject to the stipulations of General Regulation G.62, a candidate must hold an applicable master's degree to qualify for admission to the study for the PhD degree.

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

(b) Field of study

Total number of SAQA credits: 360

The PhD degree is offered by the following departments:

(i) Anatomy and Physiology	08261002
(ii) Companion Animal Clinical Studies	08261003
(iii) Paraclinical Sciences	08261004
(iv) Production Animal Studies	08261005
(v) Veterinary Tropical Diseases	08260271

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.

Each candidate must satisfy the Dean on the recommendation of the Head of Department, that he or she is working at an institution with the necessary facilities, to enable him or her to complete the work required for the degree satisfactorily, in order to obtain the consent of the Dean.

(c) Duration

The study extends over a minimum period of two years, with a maximum of six years after having complied with all the requirements for the master's degree.

(d) Conferment of degree

The PhD degree is conferred by virtue of the successful completion of a thesis provided that additional oral or written examinations may be required.

Together with the thesis 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 thesis and must be acceptable to the supervisor and meet subsidy requirements.

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

V.6. DOCTOR OF VETERINARY SCIENCE (DVSc)

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

V. POSTGRADUATE DIPLOMAS

The programmes are offered in co-operation with the Schools of Medicine and Dentistry in the Faculty of Health Sciences.

The following requirements and regulations are applicable to both the DCH(Vet) and the DHA(Vet).

(a) Requirements for admission

Candidates who wish to register for the DCH(Vet), must have obtained a BVSc or equivalent degree at least one year previously, or at least two years previously in respect of the DHA(Vet). In addition, the candidate must be registered with the South African Veterinary Council as a veterinary surgeon.

(b) Duration

The programmes are offered part-time and extend over at least two academic years.

(c) Examinations

Students must attend all lectures and practicals to the satisfaction of the Head of Department before they will be admitted to the examinations, and must pass the prescribed written, oral and/or practical examinations in all the modules.

A minimum examination mark of 50% is required in each of the theoretical and practical sections of a module for which a year or semester mark is not required.

However, in cases where a semester or a year mark is required, a minimum semester or year mark of 40% must be obtained in each section for admission to the examination. A subminimum of 40% in the examination, and at least 50% as a final mark are required to pass in the theoretical and practical sections. Instructions regarding semester, year or examination marks contained in the departmental manuals, are brought to the specific attention of students.

(d) Supplementary examinations

Supplementary examinations are granted in a maximum of two modules in each section and may only take place six months after the original examination. If more than two modules are failed, the modules concerned must be repeated.

(e) Diploma with distinction

A diploma is awarded with distinction to a student who obtains an average of at least 75% in all the modules.

V.7 POSTGRADUATE DIPLOMA IN VETERINARY COMMUNITY HEALTH [DCH(Vet)] (CODE 08220041)

Curriculum

Total number of SAQA credits: 240

Part I

Under review

Part II

Under review

V.8 POSTGRADUATE DIPLOMA IN HEALTH ADMINISTRATION [DHA(Vet)] (CODE 08220051)

Curriculum

Total number of SAQA credits: 240

Part I

Under review

Part II

Under review

VI. UNIVERSITY DIPLOMA

V.9 UNIVERSITY DIPLOMA IN VETERINARY NURSING (DipVetNurs) (CODE 08120002)

(a) Requirements for admission

- (i) A candidate must be in possession of a Grade 12 exemption certificate.
- (ii) A minimum pass mark in Mathematics and Physical Science or Biology of at least 40% at higher grade or 50% at standard grade is required.
- (iii) No provisional exemption certificate or certificate without Grade 12 exemption will be accepted.
- (iv) Students are admitted annually after selection according to the approved procedure.
- (v) 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.
- (vi) After the diploma has been awarded, diplomates are required to register with the South African Veterinary Council as veterinary nurses before they may be employed in South Africa in this capacity.

(b) Duration of study

Two academic years of full-time study.

(c) Clinical skills training

Clinic service must be done in the Faculty as well as at approved private practices during the course of the two academic years, as determined by the Dean in consultation with the Heads of Department. A student's skills, conscientiousness, discipline and professional conduct are assessed on a continuous basis. Admission to the final examination can be refused if his or her performance is unsatisfactory.

(d) Admission to examinations

The stipulations of General Regulation G.10.1 regarding satisfactory preparation, as well as the payment of class fees, apply to examination, promotion and attendance modules. In addition, attendance of all the prescribed practicals, clinics (including holiday clinics) and excursions is compulsory. Absence with good reason from any of these must be corroborated 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.

(e) Pass requirements in modules and supplementary examinations

- (i) In order to pass an examination module, a student must obtain a subminimum of 40% in the examination and a final mark of at least 50%. In promotion modules, a semester or year mark of at least 50% is required to pass.
- (ii) The theoretical part (i.e. written and/or oral) and the practical part (where applicable) of the examinations contribute an equal amount (i.e. 50:50) in the calculation of the final mark.

- (iii) If the examination includes a practical as well as a theoretical part, a sub-minimum of 40% is required in each section.
- (iv) An examination mark of 50% is required to pass a supplementary examination. The semester or year mark is not taken into calculation.
- (v) Supplementary examinations may be granted to a student in an unlimited number of modules in the first year of study, but not in the second year of study.

(f) Promotion to the second year of study

A student who fails one or more modules in the first year of study, is subjected to selection once again. A limited number of 5 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. For modules passed with a final mark of 65% or more, full exemption of lectures and examinations is granted.

(g) 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.

(h) General

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

- (i)** A student who has to discontinue his or her studies in terms of stipulations (f) and (h) 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 Council.

(j) Curriculum

Total number of SAQA credits: 355

(i) First year of study

ANA 104	Anatomy 104
FAR 120	Pharmacology 120
FSG 104	Physiology 104
VET 110	Veterinary Ethology 110
LTG 120	Laboratory Technique 120

MBG 111	Microbiology 111
AVP 111	General Nursing 111
PAR 120	Parasitology 120

Promotion modules

MVP 120	Medical Nursing 120
TPR 120	Theatre Practice 120
GSV 120	Reproductive Nursing 120

Note:

- Students must apply for admission to the extended programme by the end of April.
- Admission to the extended programme is at discretion of the Dean, Faculty of Veterinary Science, on recommendation of the relevant lecturers and Heads of Department via the Head: Student Administration.
- Modules not passed in the first year of the extended programme have to be included in the second year of the relevant programme. The two years of the extended programme are regarded as one year of study for purposes of promotion to the second year of study – see Reg.V.9(f).

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

Supplementary examinations: Subject to the provisions of Regulation V.9(e)(iii), students who obtain a final mark of between 40% and 49% in General Nursing 111, Microbiology 111 or Veterinary Ethology 110, may be admitted to a supplementary examination immediately after the June examinations. The provisions of Regulation V.9(e)(v) also apply.

(ii) **Second year of study**

MVP 200	Medical Nursing 200
CVP 200	Surgical Nursing 200
TPR 200	Theatre Practice 200
NAR 200	Anaesthesiology 200
RAD 200	Radiography 200
GSV 200	Reproductive Nursing 200

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. 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.

Supplementary examinations

A maximum of two supplementary examinations (including promotion tests) per student are allowed. Students who fail in more than two modules or who fail in one or more of the supplementary examinations or promotion tests, must repeat the second year of study. Students may apply for exemption from examination in modules that have already been passed, provided that they obtain a year or semester mark of at least 50% in these modules when repeating the second year of study. For modules passed with a final mark of 65% or more, full exemption is granted.

SYLLABI

Abbreviations

l. = lecture
 p.w. = per week
 sem. = semester

d.l. = demonstration lecture
 pr. = practica

DEPARTMENT OF ANATOMY AND PHYSIOLOGY

(ANA 104) **Anatomy 104:** 1st sem: 4 l., 2 d.l. ; 2nd sem: 3 l., 1 d.l.p.w.
 Basic anatomy, histology and embryology of the dog, including applicable comparative anatomy of the horse and ruminant. Offered for DipVetNurs students.

(ANA 213) **Anatomy 213:** 3rd sem. 1 l.p.w. and 5 pr. of 3 periods each p.w.
 Systematic osteology, arthrology, myology, angiology, neurology, splancnology and topographical anatomy of the dog and anatomy of the cat. General introduction to comparative embryology. The early morphogenesis and organogenesis of the body of domestic animals. The semester is concluded with an examination.

(ANA 224) **Anatomy 224:** 4th sem. 1 l.p.w. and 5 pr. of 3 periods each p.w.
 Comparative osteology, arthrology, myology, angiology, neurology, splancnology and topographical anatomy of the horse, cow, sheep and pig. Anatomy of poultry and fish. Neuro-anatomy and functional neuro-anatomy. Fetomembranes and placentation of domestic animals, teratology. The semester is concluded with an examination.

(ANA 703) **Anatomy 703 :** 2 x 1 hour l.p.w. for 30 weeks, 8 credits
 An in-depth study of the osteology, arthrology, myology, angiology, neurology, splancnology and topographical anatomy of the horse. Special attention to clinically important sections of the anatomy.

(ANA 704) **Anatomy 704:** 2 x 1 hour l.p.w. for 30 weeks, 8 credits
 An in-depth study of the osteology, arthrology, myology, angiology, neurology, splancnology and topographical anatomy of cattle. Special attention to clinically important sections of the anatomy.

(ANA 705) **Anatomy 705:** 2 x 1 hour l.p.w. for 30 weeks, 8 credits
 An in-depth study of the osteology, arthrology, myology, angiology, neurology, splancnology and topographical anatomy of the dog. Special attention to clinically important sections of the anatomy.

(ANA 774) **Anatomy 774:** The number of lectures and credits will depend on the course compiled for the student. A formal module comprises at least 2 credits. The modules are compiled for each student individually to fulfil the specific needs of the student concerned.

(ANA 779) **Anatomy 779:** 2 x 1 hour l.p.w. for 30 weeks, 4 credits

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

(APH 301) **Applied Physiology 301:** 5th and 6th sem.: 2 l.p.w.

Applied physiology of domestic and farm animals.

(FSG 104) **Physiology 104:** 1st sem.: 12 l.p.w. plus 16 lectures the week of orientation; 2nd sem.: 4 l.p.w.

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

(FSG 713) **Physiology 713:** Advanced Systematic Physiology: 16 weeks, 3 hrs p.w., 6 credits

Continuation of tuition at an advanced level, with the emphasis on applied and pathophysiology. Admission to the module must be discussed with the Head of Department during June of the preceding year. Prospective students must pass an entrance test during November of the preceding year to be admitted to the module.

(FSG 787) **Physiology 787:** 8 weeks, 3 h.p.w.: 5 credits

Pathophysiology of clinical syndromes (*capita selecta*).

(FSG 788) **Physiology 788:** 8 weeks 3 h.p.w. 5 credits

Applied Physiology of a selected topic (*capita selecta*).

(HIS 200) **Histology 200:** 2 l. plus 1 pr. of 2 periods p.w.

General cytology and histology.

Special histology of the organs and physical systems of domestic animals.

(HIS 700) **Histology 700:** 2 x 1 hour l.p.w. for 30 weeks, 5 credits

An in-depth comparative study of light and electron microscopic histology of domestic animals, birds and selected wildlife species. Consult the Head of Department for details of modules for the master's degree programme.

(PHC 200) **Physiology and Physiological Chemistry 200:** 10 l.p.w. (including practical work)

The physiology and physiological chemistry of the live cell. The physiology and physiological chemistry of all the physical systems of domestic and farm animals.

DEPARTMENT OF COMPANION ANIMAL CLINICAL STUDIES
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(ANE 771) **Anaesthesiology 771:** 4 credits

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.

(ANE 772) Anaesthesiology 772: 4 credits

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

(ANE 800) Anaesthesiology 800

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.

(AST 500) Anaesthesiology 500: 1st sem: 2 l.p.w.; 2nd sem. 1 l.p.w.

Theoretical training in the basic principles in the administration of premedication, intravenous and inhalation anaesthetic agents to domestic and some common exotic pet animals. The module covers the design and function of the inhalation anaesthetic machine, the monitoring of vital functions during anaesthesia, the diagnosis and treatment of common complications during the peri-anaesthetic period and the administration of local anaesthetic agents.

(CAH 700) Companion Animal Behaviour 700: 6 credits

Six seminars will be required according to the standard and format set by the Department. The module extends over one year. No specific practical projects are required, but projects may constitute part of the preparation for the seminars. The species concerned are horses, dogs and cats, and the module content will include the study of animal needs, genetics, nutrition, management, housing, record-keeping, hygiene and welfare of animals. Special attention is given to animal behaviour.

(CBF 510) Cage Birds and Fish Diseases 510: 3 l. p.w. – 1stsem.

Theoretical module covering:

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

Fish: Husbandry, clinical work-up, endo- and ectoparasites, bacterial-, fungal- and viral

diseases and treatments.

(CHR 703) **Surgery: Small Animals 703**: 7 credits
Advanced theoretical study of small animal surgery.

(CHR 704) **Surgery: Horses 704**: 8 credits
Advanced theoretical study of equine surgery.

(CHR 705) **Surgery 705**: 3 credits
Applicable aspects of general surgery and biomaterial science, anaesthesiology and diagnostic imaging.

(CHR 706) **Surgery 706**: 5 credits
Aspects of general and abdominal surgery, anaesthesiology and diagnostic imaging applicable to advanced studies in reproduction (all species).

(CHR 803) **Surgery 803**
Advanced theoretical, practical and experiential module in small animal surgery.

(CHR 804) **Surgery 804**
Advanced theoretical, practical and experiential module in equine surgery.

(CVP 200) **Surgical Nursing 200**: 3rd sem: 8 l.p.w.; 4th sem: 200 clinic periods.
The classification, complications and treatment of inflammation, wounds, bleeding, fractures and dislocation. Healing of wounds. Healing of different types of tissue. Surgical terminology. Examining a traumatised patient. Ocular emergencies. General surgical conditions and procedures of the thorax, abdomen, head and neck, skin, vertebral column and motor system. Nutrition of surgical patients. Surgical nursing of companion and production animals. Bandaging large and small animals. Dental hygiene. Physiotherapy. Pre-operative and post-operative nursing. Lectures offered by various Departments.

(DIM 771) **Diagnostic Imaging: Dogs and Cats 771**: 8 credits
Advanced study in diagnostic imaging of dogs and cats. The module extends over a period of one year. Approximately 23 lectures/group discussions are presented fortnightly on Wednesday mornings.

Approximately 50% is devoted to radiology; 35% to diagnostic ultrasound; 5% to alternative diagnostic methods and 5% to scintigraphy. Training is done mainly by means of practical interpretation of radiographic and ultrasonic images.

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 presented in alternate years on condition that more than three candidates apply.

(DIM 772) **Diagnostic Imaging: Horses 772**: 7 credits

Advanced study in diagnostic imaging of horses. The module extends over a period of one year. Approximately 22 lectures/group discussions are presented fortnightly on Wednesday mornings. Approximately 50% is devoted to radiology; 5% to radiography; 35% to diagnostic ultrasound; 5% to alternative diagnostic methods and 5% to scintigraphy. Training is done mainly by means of practical interpretation of radiographical and ultrasound images.

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 presented in alternate years concurrently with Diagnostic Imaging 773, provided that more than three candidates apply.

(DIM 773) Diagnostic Imaging: Ruminants 773: 6 credits

Advanced study in diagnostic imaging of ruminants. The module extends over a period of one year. Approximately 19 lectures/group discussions are presented fortnightly on Wednesday mornings: Approximately 30% is devoted to radiology; 10% to radiography; 55% to diagnostic ultrasound and 5% to alternative diagnostic methods.

Training is done mainly by means of practical interpretation of radiographical and ultrasound images. 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 presented in alternate years concurrently with Diagnostic Imaging 772, provided that more than three candidates apply.

(DIM 781) Radiology: Dogs and Cats 781: 6 credits

Radiology section of DIM 771

(DIM 782) Ultrasound: Dogs and Cats 782: 3 credits

Ultrasound section of DIM 771.

(DIM 783) Radiology: Horses 783: 5 credits

Radiology section of DIM 772.

(DIM 784) Ultrasound: Horses 784: 3 credits

Ultrasound section of DIM 772.

(DIM 785) Radiology: Ruminants 785: 2 credits

Radiology section of DIM 773.

(DIM 786) Ultrasound: Ruminants 786: 4 credits

Ultrasound section of DIM 773.

(DIM 870) Diagnostic Imaging 870

Advanced study of small and large animal radiography, radiology, ultrasonography, scintigraphy, magnetic resonance imaging and computed tomography: with a view to

specialisation. With the exception of three ancillary modules, DIM 771 and 772 must be passed with at least 60%. Literature study and 90 weeks practical work are also required.

(ECS 500) Equine Clinical Studies 500: 1st sem: 8 l.p.w.; 2nd sem: 9 l.p.w.

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

(ECS 600) Applied Equine Clinical Studies 600

Practical instruction on module matter dealt with in Equine Clinical Studies 500 (ECS 500).

(GEN 702) Small Animal Medicine 702: 8 credits

Advanced theoretical study in small animal medicine. Study of the conditions of internal organs is not included in this module. The module may include selected practical aspects.

(GEN 703) Equine Medicine 703: 9 credits

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

(GEN 707) Small Animal Medicine 707: 9 credits

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

(GEN 708) Veterinary Behavioural Medicine 708:

The module will provide broad based theoretical training in veterinary behavioural medicine so as to allow the student to provide a high standard of clinical service in all aspects of veterinary behavioural medicine; limited practical training in veterinary behavioural medicine and build a platform in veterinary behavioural medicine from which further studies in the field and related fields can be undertaken.

(GEN 802) Equine Medicine 802

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

(GEN 803) Small Animal Medicine 803

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

(ICS 300) Introductory Clinical Studies 300: 5th sem.: 3 l.p.w.; 6th sem.: 5 l.p.w.

Introductory clinical diagnostics, introductory clinical pathology and general surgery. Departments involved: Anatomy and Physiology, Companion Animal Clinical Studies and

Production Animal Studies.

(KDK 800) Clinical Laboratory Diagnostics 800

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.

(KPA 701) Clinical Pathology 701: 6 credits

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

(KPA 702) Clinical Pathology 702: 5 credits

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

(KPA 703) Clinical Pathology C.S. 703: 3 credits

Advanced study in clinical pathology covering a selection (*capita selecta*) of three (3) topics from KPA 701 and/or KPA 702, above.

(LTG 120) Laboratory Technique 120: 2nd sem: 6 l.p.w.

Maintenance and handling of laboratory equipment. Collecting and dispatching samples. Elementary haematology. Preparation and examination of skin scrapings, excretion samples, bacteriological and urine samples, as well as elementary clinical chemistry. Lectures offered by various Departments.

(MVP 120) Medical Nursing 120: 2nd sem: 3 l.p.w.

Theoretical aspects of intensive care nursing, including fluid therapy, cardiovascular and pulmonary resuscitation, nutritional therapy, recognition and treatment of shock. Monitoring of patients. Lectures are offered by various departments.

(MVP 200) Medical Nursing 200: 3rd sem: 6 l.p.w.; 4th sem: 473 clinic periods.

Geriatric nursing. Medical nursing of companion and production animals. Assisting with and performing diagnostic procedures. Emergency treatment and nursing care of companion animal and bovine patients.

(NAR 200) Anaesthesiology 200: 3rd sem : 4 l.p.w., 4th sem: 80 clinic periods.

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

(OFT 700) Ophthalmology 700: 6 credits

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.

(OFT 701) Ophthalmology: Small Animals 701: 3 credits

Same as OFT 700 above but only with regard to small animals – a semester module.

(OFT 702) Ophthalmology: Large Animals 702: 3 credits

Same as OFT 700 above but only with regard to large animals – a semester module.

(OFT 800) Ophthalmology 800

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

(RAD 200) Radiography 200: 3rd sem: 4 l.p.w.; 4th sem: 48 clinic periods.

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

(SAC 470) Small Animal Clinical Studies 470: 15 l.p.w.

The diagnosis, treatment and control of diseases of the dog and cat.

Integration of aspects of clinical veterinary science, including components of contagious and parasitic diseases; clinical diagnostics; clinical pathology; diagnostic imaging, therapeutics; medicine; surgery; reproduction; pathology and behavioural anomalies.

Lectures are offered by the Departments of Companion Animal Clinical Studies; Paraclinical Sciences; Production Animal Studies and Veterinary Tropical Diseases.

(SAC 600) Applied Small Animal Clinical Studies 600

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

(TPR 120) Theatre Practice 120: 2nd sem: 3 l.p.w.

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

(TPR 200) Theatre Practice 200: 3rd sem: 3 l.p.w.; 4th sem: 53 clinic periods.

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

responsibility.

(VET 110) **Veterinary Ethology 110:** 1st sem: 6 l.p.w. + 1 prac.p.w.

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.

DEPARTMENT OF PARACLINICAL SCIENCES

(DIP 520) **Diagnostic Pathology 520:** 2 lectures per week – 2nd sem.

Basic veterinary pharmacy procedures and handling of drugs.

(FAR 120) **Pharmacology 120:** 2nd sem: 8 l.p.w.

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.

(FAR 706) **Clinical Pharmacology: Ruminants 706:** 16 weeks, 3 hours p.w., 8 credits

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

The module will be presented annually provided that three or more students register.

(FAR 707) **Clinical Pharmacology: Horses 707:** 16 weeks, 3 hours p.w., 8 credits

Advanced clinical pharmacological studies in horses: special pharmacokinetic, pharmacodynamic and pharmacotherapeutic features related to equids; species-specific therapeutic objectives and rational pharmacotherapy; management tools; therapeutic control; performance enhancement and doping; specialised patient pharmacotherapy; and adverse drug effects.

The module will be presented annually provided that three or more students register.

(FAR 708) **Drugs used in Wildlife and Exotic Species 708:** 16 weeks, 3 hours

p.w.,

8 credits

Wildlife Clinical Pharmacology: Fundamentals of pharmacology in wildlife, theoretical and practical training of drugs used in the immobilisation, capture, handling and translocation of wild animals, general pharmacotherapies applied in wildlife; chemical reproductive

manipulation of wildlife and drugs used in some unusual species.

The module will be presented annually provided that three or more students register.

(FAR 710) **Veterinary Industrial Pharmacology 710:** 12 weeks, 3 hours p.w., 6 credits

Industrial Pharmacology: Advanced study of the design and development of veterinary pharmaceuticals; veterinary pharmaceutical manufacture; veterinary pharmaceutical services; drug control and registration; theoretical and practical training on the collation of a registration dossier; and the marketing and sales of veterinary products.

The module will be presented annually provided that three or more students register.

(FAR 775) Clinical Pharmacology: Dogs and Cats 775: 16 weeks, 3 hours p.w., 8 credits

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

The module will be presented annually provided that at least three students register.

(LAS 700) Laboratory Animal Science 700 (Prerequisite VRM 781) (not offered in 2003)

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

(PFK 800) Laboratory Animal Science 800 (Prerequisite: VRM 781) (not offered in S003)

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. A research project is a prerequisite.

(PHE 600) Applied Veterinary Public Health 600

Two rotations of 16.5 tutorials and 8.5 practicals per week per student for practical instruction and applied consideration of the basic principles of subject areas dealt with in PHE 500.

(FAR 776) Advanced Fundamentals of Pharmacology 776: 16 weeks, 3 hours p.w., 8 credits

Advanced studies on the Fundamentals of Veterinary Pharmacology: Scope and historical development of veterinary pharmacology. Veterinary pharmaceuticals and drug development. Drug formulation theory. Pharmacokinetic analysis and modelling. Molecular basis of drug action and potential pharmacological modulation of organ systems and body functions. Dose-response relationships. Pharmacodynamic responses and adverse drug effects. Mechanism of action of chemotherapeutic agents and their associated pharmacological effects. Complementary medicines. The fundamentals of pharmacological research.

(FAR 777) Combined Clinical Pharmacology 777: 20 weeks, 3 hours p.w., 12 credits

A combination of FAR 706, 707 and 775. Mainly aimed at students who envisage

following a specialisation for the MMedVet degree.

(FAR 800) Pharmacology 800

Information can be obtained from the Department.

(GOP 300) General and Organ Pathology 300: 5th and 6th sem. 6 l.p.w.

Definitions, terminology and the pathogenesis of basic lesions in tissue and organs, including causes of diseases, reversible cell damage, pigmentations, necrosis, apoptosis, circulatory disturbances, inflammations, immunopathology, growth disturbances and neoplasma on a histological and macroscopic basis.

Organ pathology (with the emphasis on macroscopic changes and pathogenesis) of the various organ systems of the body.

(GPH 300) General Pharmacology 300: 5th and 6th semester: 3 l.p.w.

General principles of pharmaceuticals, pharmacokinetics, pharmacodynamics and pharmacotherapeutics. Regulatory control of veterinary medicines and dispensing requirements. A study of groups of functional, systemic and chemotherapeutic drugs used in general veterinary practice with regard to their origin, classification, representative disposition, dosage forms, general indication, safety and side effects.

(PAT 700) Pathology 700: 9 credits

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

(PAT 702) Pathology: Dogs and Cats 702: 4 credits

Diagnostic pathology of the diseases of dogs and cats.

(PAT 703) Pathology: Pigs 703: 4 credits

Diagnostic pathology of the diseases of pigs.

(PAT 704) Pathology: Horses 704: 4 credits

Diagnostic pathology of the diseases of horses.

(PAT 705) Pathology: Ruminants 705: 4 credits

Diagnostic pathology of the diseases of ruminants.

(PAT 706) Pathology: Wildlife 706: 7 credits

Diagnostic pathology of the diseases of wildlife.

(PAT 707) Necropsy Technique and Interpretation 707: 4 credits

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

(PAT 708) Ophthalmological Pathology 708: 4 credits

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

(PAT 709) Reproductive Pathology 709: 4 credits

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

(PAT 771) Mechanisms of Disease 771: 4 credits

Mechanisms of disease (for Medicine students).

(PAT 800) Pathology 800

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

(PHE 500) Veterinary Public Health and Applied Epidemiology 500

1st semester: 4 l.p.w. 2nd semester: 5 l.p.w.

The role of the veterinary surgeon in veterinary public health. Veterinary food hygiene and nutrition-related diseases of veterinary importance regarding food of animal origin. Meat and milk hygiene; all necessary measures 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. Introduction to veterinary epidemiology and the development of basic principles by way of case studies. Introduction to the social aspects of the human-animal interaction with regard to protecting and promoting human health, including veterinary extension. Relevant aspects relating to animal welfare.

(TOX 300) Toxicology 300: 5th and 6th sem. 3 l.p.w.

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

(TOK 701) Toxicology: Basic and Clinical Veterinary Toxicology 701: 7 weeks, 3 hours per week: 80% theory, 20% practical work, 5 credits

Advanced studies in toxicological principles to enable students to develop proficiency in routine toxicological investigations, treatment, advice and diagnostic procedures. The module will be presented annually provided that two or more students register.

(TOK 702) Toxicology: Laboratory Toxicity Testing 702: 6 weeks, 3 hours per week: 80% theory, 20% practical work, 2 credits

Advanced studies in laboratory toxicity testing and methodology. The module will be presented annually provided that two or more students register.

(TOK 703) **Toxicology: Phyto- and Mycotoxins 703:** 8 weeks, 3 hours per week:

90% theory, 10% practical work, 6 credits

Advanced training in the most important and well-known plant poisoning syndromes and mycotoxicoses as well as an introduction to newer and less important poisonous plants and mycotoxicoses. The module will be presented annually provided that two or more students register.

(TOK 704) **Toxicology: Organic and Inorganic Poisons 704:** 6 weeks, 3 hours per week: 90% theory, 10% practical work, 5 credits

Advanced training on the most important and well-known zootoxicoses and organic and inorganic poisons. An introduction to less common organic and inorganic poisonings and other poisonous/venomous species of veterinary importance in Southern Africa. The module will be presented annually provided that two or more students register.

(TOK 800) **Toxicology 800**

Details can be obtained from the Department.

(VPH 781) **Veterinary Public Health 781:** 4 credits

Specific activities in Veterinary Meat Hygiene: Red meat, relating to prevention and control of zoonoses and other diseases transmitted by meat, 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.

(VPH 782) **Veterinary Public Health 782:** 3 credits

Specific activities in Veterinary Meat Hygiene: Poultry, relating to prevention and control of zoonoses and other diseases transmitted by meat, pre-harvesting, harvesting and post-harvesting aspects of poultry meat production, practical application of HACCP relating to the specific activities, prevention and control of chemical residues in meat, including veterinary drug residues.

(VPH 783) **Veterinary Public Health 783:** 4 credits

Specific activities in Veterinary Milk Hygiene, relating to prevention and control of zoonoses and other diseases transmitted by milk, pre-harvesting, harvesting and post-harvesting aspects of milk production, practical application of HACCP relating to the specific activities, prevention and control of chemical residues in milk, including veterinary drug residues.

(VPH 784) **Veterinary Public Health 784:** 4 credits

Specific activities in Environmental Health, relating to control of zoonoses of environmental origin, safe collection and disposal of dead animals, condemned meat and other animal wastes, the control of environmental pollution in animal settlements and animal industries, preservation of the urban and rural environment by controlling animal populations, prevention of occupational hazards and diseases connected with

live animals and their products in both rural and urban environments in emergency and disaster situations, an overview of the effects of the human-animal interrelationship including veterinary extension and communication, and the principles of pet-facilitated therapy.

(VRM 782) **Veterinary Research Methodology 782:** 2 credits (Prerequisite: VRM 781)

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

(VVD 800) **Veterinary Public Health 800**

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

DEPARTMENT OF PRODUCTION ANIMAL STUDIES

(AHG 200) **Animal Handling 200:** 3rd and 4th sem. 3 prac.p.w.

Animal contact sessions are compulsory and include hands-on sessions for domestic animals. Students are expected to acquire the skills necessary to handle animals, and know how and why a range of basic animal management procedures are carried out.

(AVP 111) **General Nursing 111:** 1st sem: 10 l.p.w.

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

(BHP 470) **Bovine Health and Production 470:** 15 l.p.w.

The diagnosis, treatment and control of diseases in cattle. Aspects of clinical veterinary science, including components of contagious and parasitic diseases, clinical diagnosis, clinical pathology, diagnostic imaging, therapeutics, medicine, surgery, reproduction, pathology and applied nutrition and herd health.

(BHP 600) **Applied Bovine Health and Production 600**

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

(BKG 781) **Dairy Cattle Herd Health 781:** 6 credits

A semester module based on dairy-farm visits, discussions, seminars and case

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

(BKG 782) Beef Herd Health 782: 4 credits

A semester module based on beef cattle-farm visits, discussions, seminars and case studies. The module will enable students to integrate and apply knowledge so that health and production problems can be identified and solved on a herd basis, while health status and production effectiveness can be improved within a wide spectrum of beef cattle farming systems and feedlots.

(BKG 800) Cattle Herd Health 800

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

(BVM 701) Bovine Medicine: Gastro Intestinal and Production Diseases 701: 4 credits

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

(BVM 702) Bovine Medicine: Diseases of the liver, cardiovascular, respiratory and urinary system 702: 4 credits

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

(BVM 703) Bovine Medicine: neurology, musculo-skeletal system, skin and appendages 703: 4 credits

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

(ECP 200) Ecology and Pasture Science 200: 3rd and 4th sem: 2 l.p.w.

To make students aware of ecological laws and processes and how these impact on pasture science. This knowledge will enable students to advise farmers regarding good veld and pasture management as well as the conservation of vegetation.

(EPI 751) Veterinary Epidemiology 751: 5 credits Paper-based distance learning module.

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

An introductory module in veterinary epidemiology designed to provide a sound foundation in epidemiology that can be applied in practice and upon which further studies in various veterinary disciplines can be built. The module is presented as a paper-based distance learning module, which will enable students to complete it in their own time, at their own pace and place.

The module covers aspects of population medicine, disease outbreak investigation, clinical epidemiology, experimental studies, observational studies, surveys, analytical tools and serological tests.

(EPI 752) Veterinary Epidemiology 752: 4 credits Paper-based distance learning module.

Prerequisite BVSc or equivalent qualification and Grade 12 Mathematics.

Applied statistical methods for veterinarians. This module provides students with a foundation in statistical methods commonly used by postgraduate students in various disciplines, research veterinarians, herd health practitioners and veterinary specialists, including wild life, poultry, medicine and VPH. The module is designed as a paper-based distance learning module which will enable students to complete it in their own time, at their own pace and place.

The module covers statistical building blocks, confidence intervals, hypothesis testing, chi-square procedures, regression and correlation, paired and pooled t-tests, analysis of variance, parametric and non-parametric tests.

(EPI 753) Veterinary Epidemiology 753: 3 credits E-mail based distance learning module. (Prerequisite: EPI 751 and EPI 752)

(Prerequisites: Advanced statistical techniques and Geographical Information Systems for veterinarians)

This module will provide the veterinarian with an introduction to certain advanced statistical methods applicable to veterinary science, including data adjustment techniques, multiple linear regression, logistic regression and survival analysis, as well as a working knowledge of geographic information systems. It will provide the basis for further studies and research involving these techniques.

(EPI 754) Veterinary Epidemiology 754: 5 credits E-mail based distance learning module.

Prerequisite: EPI 751, Grade 12 Mathematics and a working knowledge of Excel or a similar spreadsheet programme.

Advanced epidemiology, economics and risk assessment for veterinarians. This module is designed to allow veterinarians to obtain advanced knowledge in disease modelling techniques, applied animal health economics and risk analysis. It is a prerequisite for a master's degree in veterinary epidemiology.

(GEN 704) Bovine Medicine and Surgery 704: 4 credits

Advanced theoretical study in cattle medicine and surgery. The module may include selected practical aspects.

(GEN 705) Bovine Medicine 705: 4 credits

Advanced study in cattle medicine. The module will include selected practical aspects.

(GEN 801) Bovine Medicine 801

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

(GSK 708) Reproductive physiology of animals 708: 6 credits

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

(GSK 709) Reproductive Biology: Cattle 709: 8 credits

Includes the physiology and endocrinology of puberty in the heifer, the oestrous cycle, pregnancy, parturition, the puerperium, as well as that of the foetus and the neonate. Also included are the physiology and endocrinology of the bull, more specifically that of puberty, spermatogenesis, the scrotum, the accessory sex glands, libido, erection, coitus, sperm and semen. Also included are certain aspects of reproductive biotechnology, namely the biotechnical aspects of collection, examination and freezing of semen and embryos, embryo transfer and in vitro fertilization.

(GSK 710) Clinical Reproduction: Cattle 710: 8 credits

Causes, pathogenesis, control, treatment and prevention of diseases and malfunctions of reproduction in cattle, as well as the evaluation of males and females for breeding soundness. Also included are certain aspects of assisted reproduction and reproductive biotechnology, such as control of the oestrous cycle and parturition. A veterinary perspective (indications, limitations, current and future possibilities, and methods) on those reproductive biotechnologies included in GSK 709.

(GSK 711) Reproductive Biology: Small Stock 711: 6 credits

Includes the physiology and endocrinology of puberty in the ewe or doe, as well as that of seasonality of reproduction, the oestrous cycle, pregnancy, parturition, the puerperium, and that of the foetus and the neonate. Physiology and endocrinology of the ram, more specifically that of puberty, spermatogenesis, the scrotum, the accessory sex glands, libido, erection, coitus, sperm and semen. Also included are certain aspects of reproductive biotechnology, namely the biotechnical aspects of collection, examination and freezing of semen and embryos.

(GSK 712) Clinical Reproduction: Small Stock 712: 6 credits

Causes, pathogenesis, control, treatment and prevention of diseases and malfunctions of reproduction in sheep and goats, as well as the evaluation of males and females for breeding soundness. Also included are certain aspects of assisted reproduction and reproductive biotechnology, such as control of the oestrous cycle and parturition. A veterinary perspective (indications, limitations, current and future possibilities, and methods) on those reproductive biotechnologies included in GSK 711.

(GSK 713) Reproductive Biology: Horses 713: 6 credits

Includes the physiology and endocrinology of puberty in the mare, as well as that of seasonality of reproduction, the oestrous cycle, pregnancy, parturition, the puerperium, and that of the foetus and the neonate. Also included are the physiology and endocrinology of the stallion, more specifically that of puberty, spermatogenesis, the scrotum, the accessory sex glands, libido, erection, coitus, sperm and semen. Also included are certain aspects of reproductive biotechnology, namely the biotechnical aspects of collection, examination and freezing of semen and embryos and embryo transfer.

(GSK 714) Clinical Reproduction: Horses 714: 6 credits

Causes, pathogenesis, control, treatment and prevention of diseases and malfunctions of reproduction in cattle, as well as the evaluation of males and females for breeding soundness. Also included are certain aspects of assisted reproduction and reproductive biotechnology, such as control of the oestrous cycle and parturition. A veterinary perspective (indications, limitations, current and future possibilities, and methods) on those reproductive biotechnologies included in GSK 713.

(GSK 715) Reproductive Biology: Dogs and Cats 715: 6 credits

Includes the physiology and endocrinology of puberty in the bitch and queen, the seasonality of reproduction in the queen, the oestrous cycle, pregnancy, parturition, the puerperium, and that of the foetus and the neonate. Also included are the physiology and endocrinology of the dog and tomcat, more specifically that of puberty, spermatogenesis, the scrotum, the accessory sex glands, libido, erection, coitus, sperm and semen. Also included are certain aspects of reproductive biotechnology, namely the biotechnical aspects of collection, examination and freezing of semen.

(GSK 716) Clinical Reproduction: Dogs and Cats 716: 6 credits

Causes, pathogenesis, control, treatment and prevention of diseases and malfunctions of reproduction in dogs and cats, as well as the evaluation of males and females for breeding soundness. Also included are certain aspects of assisted reproduction and reproductive biotechnology, such as control of the oestrous cycle and parturition. A veterinary perspective (indications, limitations, current and future possibilities, and methods) on those reproductive biotechnologies included in GSK 715, as well as embryo transfer and in vitro fertilization.

(GSK 717) Reproductive Biology: Wildlife 717: 6 credits

Physiology and endocrinology of reproduction and reproductive patterns of wildlife, the

monitoring of their reproduction, the development of breeding programmes for them and contraception. Also included is a theoretical overview of the threats to wildlife reproduction posed by environmental pollutants, diseases and drugs.

(GSK 718) Clinical Reproduction: Wildlife 718: 6 credits

Causes, pathogenesis, diagnosis, treatment, control, and prevention of diseases and malfunctions of reproduction in wildlife, as well as the evaluation of males and females for breeding soundness. Also included are certain aspects of assisted reproduction, reproductive biotechnology and contraception.

(GSK 800) Reproduction 800

GSK 800 offers broad-based, in-depth theoretical and practical training on animal reproduction and is a requirement for the MMedVet(Reproduction) degree. Reproduction, as taught during the undergraduate veterinary curriculum, serves as basis for advanced training in obstetrics, gynaecology, andrology and assisted reproduction of animals. Modules GSK 708 to GSK 718 are compulsory components of GSK 800.

(GSV 120) Reproductive Nursing 120: 2nd sem: 4 l.p.w.

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

(GSV 200) Reproductive Nursing 200: 4th sem: 80 clinic periods.

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

(KKS 780) Small Stock Herd Health 780: 6 credits

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

(KKS 800) Small Stock Herd Health 800

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.

(PAM 700) Production Animal Management 700: 6 credits

Six seminars will be required to the standard and format determined by the Department. The module extends over one year. No specific practical projects are required, but projects may constitute part of the preparation for the seminars.

The species concerned are dairy cattle, beef cattle, small stock and pigs. The module content includes the study of animal genetics, nutrition, management, housing, keeping of records, hygiene, welfare and behaviour, with special emphasis on nutrition. An oral examination takes place at the conclusion of the module.

(PHP 500) Porcine Health and Production 500: 3 l.p.w.

Theoretical training in pig parasitic and infectious diseases, herd health and management programmes to integrate and apply the knowledge of relevant veterinary courses with a view to identifying and solving problems on a herd basis. Further to improve the health status and production effectiveness of intensive and extensive piggeries from a holistic and cost-effective viewpoint. Departments involved in lectures: Anatomy and Physiology, Production Animal Studies and Veterinary Tropical Diseases.

(PHP 600) Applied Porcine Health and Production 600

Practical instruction on module matter dealt with in Porcine Health and Production 500.

(PHP 701) Porcine Health and Production: Housing 701: 4 credits

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

(PHP 702) Porcine Health and Production: Nutrition 702: 4 credits

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

(PHP 771) Poultry Health and Production 771: 8 credits

Advanced training in poultry health and production systems (Honours level).

(PHP 800) Poultry Health and Production 800

Advanced training (Master's level) in poultry health and production. This module is a prerequisite for the MMedVet(Altill) degree.

(PPR 500) Poultry Health and Production 500: 3 l.p.w.

Study of the health risks affecting poultry production including breeding, housing, nutrition, diseases and management. The module provides students with the basic information regarding the health risks and a problem-based syndrome approach covering the major production-related problems in poultry production, including limited-resource poultry farming.

(PPR 600) **Applied Poultry Health and Production 600**

Practical instruction on module matter dealt with in Poultry Health and Production 500.

(PVV 700) **Poultry Nutrition 700:** 5 credits

Commercial poultry nutrition (Honours level).

(SSH 500) **Small Stock Health and Production 500**

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

(SSH 600) **Applied Small Stock Health and Production 600**

Practical instruction on course matter dealt with in SSH 500.

(VET 800) **Veterinary Ethology 800** (Under revision and will not be offered during 2003.)

A special advanced module in selected types of animal production, with the emphasis on veterinary aspects. The focus is on the optimisation of nutrition, breeding and management of a specific livestock category, to attain both good profitability and profits. Animal welfare is emphasised. Students may help select the type of livestock industry to be studied (pig, dairy cattle, beef cattle, small stock).

(VKH 800) Pig Herd Health 800

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.

(VPE 301) Animal Production and Ethology 301: 5th sem.: 9 l.p.w. + 3 prac.p.w.
6th sem: 10 l.p.w.

Introduction to the fundamentals of animal behaviour, animal genetics, animal management and animal nutrition. Applied modules followed on dogs, cats, horses, dairy and beef cattle, sheep, goats and pigs. Practical classes provide further practical learning opportunities. Extra involvement in animal management systems is required from students. Practical projects, including farm visits as determined by the Department according to established needs, have to be completed during university holidays and reports on the projects will be taken into account for evaluation purposes.

DEPARTMENT OF VETERINARY TROPICAL DISEASES

(AEZ 781) African Epizootic Diseases 781: Short course, 2 credits

Training in the epidemiology, diagnosis and control, as well as the demonstration of economically important epizootic diseases of production and other animals in Africa. (The credits may count towards obtaining a diploma or an honours degree.)

(BAL 700) Bacteriology 700: Year module, 5 credits

Advanced training in veterinary bacteriology, including rickettsiology and mycology with particular emphasis on diagnostic and other laboratory techniques.

(DAP 771) Draught Animal Power 771: 4-week course (intensive, full-time), 7 credits

Practical and applied aspects of draught (or traction) animal power, including nutrition, health, socio-economic, participatory rural valuation techniques, promotion of draught animal power, measuring work performance and selection, and use of harnesses and work tools for draught animals.

(HEL 700) Helminthology 700: Year module, 8 credits

Advanced study of biology, prevention and control as well as the veterinary and socio-economic importance of parasitic worms in production and companion animals.

(IFS 771) Infectious Diseases: Large Stock 771: Year module, 9 (7) credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the virus, bacterial, fungal, rickettsial (and protozoal) diseases of cattle.

(IFS 772) Infectious Diseases: Dogs and Cats 772: Year module, 5 credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the virus, bacterial, fungal, rickettsial (and

protozoal) diseases of dogs and cats.

(IFS 773) **Infectious Diseases: Small stock 773:** Year module, 6 credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the virus, bacterial, fungal, rickettsial (and protozoal) diseases of small stock.

(IFS 774) **Infectious Diseases: Horses 774:** Year module, 6 credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the virus, bacterial, fungal, rickettsial (and protozoal) diseases of horses.

(IFS 775) **Infectious Diseases: Pigs 775:** Year module, 6 credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the virus, bacterial, fungal, rickettsial (and protozoal) diseases of pigs.

(IFS 776) **Infectious Diseases: Public Health 776:** Year module, 7 (5) credits

Advanced theoretical study of the occurrence, prevention and control as well as the socio-economic importance of the virus, bacterial, fungal, rickettsial (and protozoal) diseases (zoonoses).

(IFS 777) **Infectious Diseases: Wildlife 777:** Year module: 6 (5) credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the virus, bacterial, fungal, rickettsial (and protozoal) diseases of wildlife.

(IMI 300) **Immunology and Microbiology 300:** 5th and 6th sem.: 4 l.p.w.

Immunology and Microbiology: Basic and applied aspects of the two fields are studied. Immunology: deals with the basic concepts related to the immune response of animals to infectious, non-infectious and parasitic conditions and the principles and application of immunodiagnostics.

Microbiology: deals with taxonomy and biophysical properties of pathogenic bacteria (including mycoplasmas), fungi, viruses, rickettsias and protozoa of animals. Basic concepts of infectious diseases related to epidemiology, socio-economics, pathogenesis, diagnosis, prevention, control and eradication are discussed.

(IMM 700) **Immunology 700:** Year module, 8 credits

Advanced theoretical study in immunology with special emphasis on veterinary science.

(MBG 111) **Microbiology 111:** 1st sem: 8 l.p.w.

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

(MBG 781) **Microbiology: Laboratory Diagnostic Series 781:** Short course, 4 credits

Practical training in either veterinary bacteriology or virology; or protozoology or immunology with particular emphasis on applicable techniques for diagnostic laboratories and field workers in Africa. (The credits may be used towards obtaining a diploma or an honours degree.)

(PAR 120) **Parasitology 120:** 2nd sem: 4 l.p.w.

Elementary parasitology. The module encompasses the three subdisciplines of parasitology: helminthology, ectoparasitology and protozoology. The aim of this module is to familiarise students with the most important parasites of domestic animals in South Africa. On completion of this module the student will be able to identify the most important helminths, arthropods and protozoa. Additionally, the student is provided with a basic knowledge on the diseases directly and indirectly attributable to infection/infestation of the various hosts with these organisms to be able to assist in their treatment and control.

(PAR 781) **Parasitology: Laboratory Diagnostic Series 781:** Short course, 4 credits

Practical training in either veterinary helminthology or ectoparasitology with particular emphasis on applicable techniques for diagnostic laboratories and field workers in Africa. (The credits may be used towards obtaining a diploma or an honours degree.)

(PAR 772) **Parasitology: Large Stock 772:** Year module, 9 (7) credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the worms, ectoparasites (and protozoal diseases) of cattle.

(PAR 773) **Parasitology: Small Stock 773:** Year module, 7 credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the worms, ectoparasites (and protozoal diseases) of small stock.

(PAR 774) **Parasitology: Public Health 774:** Year module, 6 (4) credits

Advanced theoretical study of the occurrence, prevention and control as well as the socio-economic importance of the worm, ecto- (and protozoal) parasites that are zoonoses.

(PAR 775) **Parasitology: Wildlife 775:** Year module, 6 (5) credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the worms, ectoparasites (and protozoal diseases) of wildlife.

(VBE 500) **Veterinary Business Management and Ethics 500:** 2 l.p.w.

The module is divided into 3 areas of study, namely Veterinary Law and Ethics,

Regulatory Veterinary Services and Practice Management. The first section deals with control measures to prevent the spread of nationally and internationally recognised notifiable diseases and the certification of animals and animal products. The second deals with statutes involving the veterinary profession, including labour law and the veterinarian's role in ethical decision-making with regards to their patients and animals used in research. The third section deals with business principles applicable to private veterinary practice, including general practice management, financial management and marketing.

(PTS 700) **Protozoal Diseases 700**: Year module, 8 credits

Advanced theoretical study of the biology, prevention and control as well as the veterinary and socio-economic importance of the protozoal diseases of production and companion animals.

(RMD 510) **Research Methodology 510**: 1st semester: 3 l.p.w.

Details of this module can be obtained from the Department.

(VEP 701) **Veterinary Ectoparasitology 701**: Year module, 8 credits

Advanced study of the biology, prevention and control as well as the veterinary and socio-economic importance of ectoparasites of production and companion animals. Students also have to collect and identify free-living and parasitic arthropoda.

(VIR 700) **Virology 700**: Year module, 5 credits

Advanced training in veterinary virology with particular emphasis on diagnostic and other laboratory techniques.

(VRM 781) **Veterinary Research Methodology 781**: 1 credit

An introductory module to research methodology aimed at graduates who are interested in veterinary research or postgraduate study in the Faculty.

The module covers research opportunities, research degrees, writing an essay, article or contract report, the presentation of posters or papers, planning a research project, design of a protocol, questionnaires, experimental design as well as the use of microcomputers and the library in research. This module is a prerequisite for Epidemiology 755.

(VTP 300) **Veterinary Parasitology 300**: 5th and 6th sem.: 2 l.p.w.

Introduction and terminology of helminths (nematodi, cestodi and trematodi) and ectoparasites (ticks, mites, diptera flies, fleas, bugs and lice) of importance to domestic animals in South Africa. General concepts related to the taxonomy, identification, pathogenesis, clinical signs and epidemiology and control of these parasites. Control includes the suitable use of anti-parasitic drugs, present status of resistance, biological and integrated control as well as the management, control and prevention of zoonoses.

(WOC 510) **Wildlife, Ostrich and Crocodile Health 510**: 1st semester: 3 l.p.w.

A one-semester (elective) module designed to give veterinary students a working knowledge of the most important infectious and parasitic diseases of wildlife and the

principles of good management and care of both free-living and farmed populations of wild mammals, ostriches and crocodiles.

(WSK 700) **Wildlife Diseases 700**: Year module, 8 credits

Basic principles of ecology and epidemiology. Mammalogy, including taxonomy, behaviour, nutrition and physiology. The pharmacology of tranquillisers and the practical application of capture techniques. Captivity and transit of game.

(WSK 800) **Wildlife Diseases 800**

- (i) Game farming and the utilisation of wildlife: capturing, handling, transit, meat production, hunting, fencing, carrying capacity, and nutrition. Wildlife diseases: epidemiology, particularly where contact between wildlife and cattle causes the spreading of disease, control measures, diagnostic methods, zoonoses. Veterinary aspects: game in confined areas, design of pens, nutrition, treatment of diseases – internal and external parasites. Treatment of birds and reptiles. Specialised game farming; breeding endangered species; crocodile farming, intensive game farming.
- (ii) Pharmacology
- (iii) Parasitology
- (iv) Veterinary Public Health
- (v) Pasture Management
- (vi) Clinical Pathology
- (vii) Reproduction
- (viii) Infectious Diseases
- (ix) General Pathology
- (x) Pathophysiology

Students may be exempted from modules that correspond with their prerequisite subjects.

MEDALS AND PRIZES IN THE FACULTY

Prize	Donor	Criteria
Bachelor of Veterinary Science		
ABSA Anatomy Prize	ABSA	Best achievement in Anatomy 213 and 224.
ABSA Prize for Reproduction	ABSA	Best achievement in the clinical aspects of reproduction in the final year.
Bayer Prize	Bayer (SA) Animal Health	<ul style="list-style-type: none"> • Aptitude and best achievement in Pathology throughout the degree programme. • Best achievement in Introductory Veterinary Parasitology at the end of the third year.
Beckman Coulter Prize	Beckman Coulter SA (Pty) Ltd	Best performance in Applied Physiology at the end of the third year.
Douw G. Steyn Floating Trophy	Mrs E.J.A. Steyn	Best progress in Pharmacology 300 and Toxicology 300.
Eukanuba Best of class in nutrition	IAMS Company	Best achievement in small animal nutrition in Animal Production and Ethology and Small Animal Clinical Studies 470 at the end of the fourth year.
Intervet Prize for Poultry Health and Production	Intervet S A (Pty) Ltd	Best performance in Poultry Health and Production at the end of the fifth and sixth year.
Kyron Surgery Prize	Kyron Laboratories (Pty) Ltd	Aptitude and best achievement in surgical skills in the final year.
Kyron-Welch Allyn Prize for Clinical Excellence	Kyron	Aptitude and best achievement in clinical skills in the final year.
Malie Smuts Prize	Prof M.M.S. Smuts	Best performance in Anatomy 213 and 224.
Merial Clinical Prize	Merial (SA) (Pty) Ltd	Best performance through perseverance and dedication in Applied Bovine Health and Production, Applied Equine Clinical Studies and Applied Small Animal Clinical Studies in the final year.
M.H.V. Brown Memorial Prize	South African Veterinary	Best performance in Introductory Veterinary Parasitology and

Prize	Donor	Criteria
	Association	Immunology and Microbiology 300 at the end of the third year.
National Wool Grower's Association Prize for Small Stock Flock Health and Production	National Wool Grower's Association	Best performance in applied Small Stock Health and Production at the end of the final year.
Pfizer Prize	Pfizer South Africa Division Animal Health	<ul style="list-style-type: none"> • Best performance in all examination modules at the end of the second year. • Best performance in all examination modules at the end of the third year. • Best practical and theoretical achievement in Applied Veterinary Public Health in the final year.
Pharmacia Prize for Promotive Animal Health	Pharmacia (Pty) Ltd	Best achievement in the Herd Health component of Applied Bovine Health and Production, Applied Small Stock Health and Production, Applied Porcine Health and Production and Applied Poultry Health and Production in the final year.
P.J. du Toit Memorial Medal	<i>Farmers' Weekly</i>	Best performance in Animal Production and Ethology at the end of the third year.
Porcine Health and Production Prize	SA Pig Producers Organisation (SAPPO)	Best achievement in Applied Porcine Health and Production in the final year.
SA Veterinary Association Witwatersrand Clinical Prize	Witwatersrand Branch of the South African Veterinary Association	Best achievement in Applied Bovine Health and Production, Applied Equine Clinical Studies and Applied Small Animal Clinical Studies in the final year.
SA Veterinary Association Prize	SA Veterinary Association	Best achievement in Veterinary Public Health and Applied Epidemiology 500.
SA Veterinary Association Group Prize	SA Veterinary Association	To all students in the two best clinic groups in the final practical year.
SSEM Small Animal Medicine Prize	SSEM	Best performance in the clinical aspects of small animal medicine in the final year.

Prize	Donor	Criteria
Swann-Morton Surgical Prize	Swann-Morton Ltd	Best progress in small animal surgery in the final year.
Taurus Prize for Bovine Reproduction	Taurus Co-operative	Best achievement in bovine reproduction in the Bovine Health and Production 470 module.
The Equine Practitioners Group Prize	The Equine Practitioners Group of the SA Veterinary Association	Best final-year student in Equine Clinical Studies 500 and Applied Equine Clinical Studies.

Prize	Donor	Criteria
Theiler Memorial Medal	Faculty of Veterinary Science	To the student who excels in merit and dedication throughout the veterinary degree programme.
Virbac Prize for Immunology and Microbiology	Logos AGVET (Div. of Logos Pharmaceuticals (Pty) Ltd)	Best achievement in Immunology and Microbiology 300.
University Diploma in Veterinary Nursing		
Adcock Ingram Prize for Intensive Care Nursing	Adcock Critical Care Ltd	Best achievement in practical intensive care nursing, taking into account the level of professionalism.
Beckman Coulter Prize for Physiology	Beckman Coulter SA (Pty) Ltd	Best achievement in Physiology 104.
Janssen Pharmaceutica Prize	Janssen Cilag	Best achievement in both the theoretical and practical aspects of Medical Nursing 200.
Kyron Laboratories Prize	Kyron Laboratories	Best achievement in both the theoretical and practical aspects of Anaesthesiology 200.
Merial Prize	Merial S A (Pty) Ltd	Best achievement in Pharmacology 120
SA Veterinary Association Practical Prize	SA Veterinary Association, Witwatersrand Branch	Best practical aptitude during the clinic semester of the final year.
The Veterinary Nurses Association of South Africa Medal	Veterinary Nurses Association of South Africa	A gold medal for excellence in all aspects of the diploma programme.
X-ray Imaging Services Prize	X-ray Imaging Services (Pty) Ltd	Best performance in Radiography 200.
Other		
SRC Honorary Medal *	Student Representative Council	To the student who has contributed the best service to the student community.

* Not limited to the Faculty of Veterinary Science