University of Pretoria Yearbook 2022

PGDip (Laboratory Animal Science) (08220062)

Department	Paraclinical Sciences
Minimum duration of study	1 year
Total credits	120
NQF level	08

Programme information

Postgraduate Diplomas are postgraduate specialisation qualifications at NQF-level 8 of at least 120 credits. In the Faculty, it is in general aimed at developing specific areas of knowledge and competence in a chosen field. As per the General Academic Regulations (GC3), a Faculty postgraduate diploma will allow for admission into an appropriate master's degree (as per the minimum entry requirements).

Also consult the General Academic Regulations G16 – G29 and Postgraduate Faculty Regulations.

i. The curriculum consists of four compulsory core and elective theoretical modules of 30 credits each to the total value of 120 credits.
ii. Each module will require a certain amount of contact sessions and the balance may be conducted online. The detail of the sessions for each module is published in the respective study guides.
iii. A minimum number of students could be set (as per the discretion of the module coordinator) for the presentation of any given module. When the required minimum number of students for a particular module is not reached, the module will not be presented during that academic year but will be offered again in the following academic year. For some modules a maximum number of students who can enrol may be set. The details for each module are published in the study guides.
iv. Students are required to confirm whether a module will be presented in any particular year or not. This enquiry should be directed to the Faculty PG Student Administration co-ordinator according to the syllabi information provided in the list of modules in this yearbook.

Renewal of registration
Also consult the General Academic Regulation G18.
The duration of a postgraduate diploma is one year. Under exceptional circumstances, an extension of one year may be approved by the Deputy Dean: Research and Postgraduate studies.

i. A full-time student who is registered for postgraduate diploma must complete his or her study within one year of registering for the degree.
ii. Part-time students who are registered for a postgraduate diploma may be allowed to complete their studies within two years of first registering for the degree.

Admission requirements

1. Relevant bachelor's degree **or** Bachelor of Technology degree **or** relevant diploma (NQF level 7)

2. An admissions examination may be required

Examinations and pass requirements

Also consult the General Academic Regulations G23 – G28.

i. The postgraduate diploma is conferred on strength of the successful completion of tests/assignments and an examination on each of the four 30 credit coursework modules.
ii. The Faculty do make provision for supplementary and special examinations as per General Academic Regulations G26.4 and G26.5.
iii. Every module will be evaluated through a variety of continuous assessment methods (i.e. formative assessments, assignments, summative tests, presentations and/or oral defences where applicable) (from which a year mark will be determined), as well as an examination. A year mark of at least 40% is required for admission to the examination. The year mark and examination mark will each 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.
iv. Detailed information and/or instructions regarding requirements for year or examination assessment methods and marks are published in the relevant study guides. The calculation of marks may differ from module to module. This information is available in the study guides and students are responsible for familiarising themselves with the way in which marks are calculated in a specific module.
v. No automatic adjustment of final individual marks from 38% and 39% to 40%, or from 48% and 49% to 50%, or from 73% and 74% to 75%, for the purposes of obtaining access to a supplementary examination, or a pass mark, or a distinction may occur.
vi. A student passes a module with distinction if he or she obtains a final mark of at least 75%.
vii. A student may only enrol for a module for a second time when the Student Administration of the Faculty receives a written motivation that is supported by the relevant head of department and subsequently approved by the Deputy Dean: Research and Postgraduate Studies..

Compliance with degree requirements and degree privileges

Also consult the General Academic Regulation G29.

i. A postgraduate diploma qualification will be conferred on a student only if the student has complied with all the requirements for the particular qualification and has reached the level of competence prescribed for each module that is required for the qualification.
ii. No one is entitled to any privileges pertaining to a postgraduate diploma before the qualification has been conferred on him or her at a graduation ceremony. (In respect of professional registrations, faculties may issue confirmation letters to the relevant professional bodies prior to the graduation ceremonies.)

Pass with distinction

A postgraduate diploma is awarded with distinction if a student meets the following requirements:

a. Obtained a weighted average of at least 75% (not rounded), based on the minimum number of modules prescribed for the qualification in question; and
b. Completed the qualification in the minimum period (i.e. one year for a full-time student and two years for a part-time student) (Also consult the General Academic Regulations G18.1), and
c. Did not fail or repeat any module during an additional examination. The result of a discontinuation of a module(s) will not be considered when calculating a qualification with distinction.

Curriculum: Final year

Minimum credits: 120

The two core modules are compulsary.

Choose 2 elective modules from the list of electives.

(Clinical subjects are limited to veterinary graduates only.)

Core modules

Laboratory animal science 702 (LAS 702)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

Section 1: (10 credits)
Application of procedures within an accredited laboratory animal facility, with focus on laboratory animal management (rats and mice), including housing and care; enrichment; breeding; methods of dosing and methods of sample collection.

Section 2: (20 credits)
The biology of laboratory animals, their management and use as models in biomedical research.
The aim is to extend the activities concerning the care and use of laboratory animals for research, training and testing. Further to affirm the concept on which the modern practice of experimenting with animals is based, to take into consideration the controversy evoked in the climate of animal rights. The special professional role required of the veterinary and paraveterinary professions to enhance humane practice with regard to animal experiments as well as the promotion of a productive scientific effort in the biomedical sciences.

Research ethics for laboratory animal science 704 (LAS 704)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

An advanced module in research methodology for veterinarians involved in laboratory animals and/or laboratory work. The study will focus on animal ethics, animal ethics committee, evaluation of protocols and study design. Focus will also be placed on legislation for the use and protection of animals.

Elective modules

African wildlife disease management 701 (AWD 701)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Production Animal Studies
Period of presentation	Year

Module content

Advanced training in infectious, parasitic and nutritional diseases of wildlife and their management in African wildlife species under ranching conditions. Also included are ostrich and crocodile farming.

Controlled and notifiable diseases 701 (CND 701)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Veterinary Tropical Diseases
Period of presentation	Year

Module content

Advanced training in diseases with implications on trade and/or human health/wellbeing. The module will covey advanced knowledge in the specific disease, their management and basic monitoring epidemiological tools. Attention will also be given to emerging diseases as well as diseases associated with wildlife ranching.

Clinical pharmacology 701 (FAK 701)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

(BVSc graduates only)
Advanced studies in veterinary clinical pharmacology studies pharmacotherapeutic features related to veterinary medicine and species-specific therapeutic objectives.

Mechanisms of drug action 702 (FAK 702)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.

Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

Fundamentals of the pharmacokinetics and pharmacodynamics of veterinary drugs.

Physiology 701 (FSL 701)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Anatomy and Physiology
Period of presentation	Year

Module content

Advanced level, with the emphasis on applied and pathophysiology of disease.

Herd and primary animal health 701 (HAH 701)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Production Animal Studies
Period of presentation	Year

Module content

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. The module will also include aspects of primary animal health care that will be applicable to needs of the emerging farming sector.

Histology 701 (HTY 701)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Anatomy and Physiology
Period of presentation	Year

Module content

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

Clinical pathology 704 (KPA 704)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)
Advanced study in clinical pathology including enzymology, cytology, haematology as well as clinical pathology of the kidney in domestic animals.

Clinical pathology 705 (KPA 705)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Companion Animal Clinical Studies
Period of presentation	Year

Module content

(BVSc graduates only)

Advanced study in clinical pathology including proteins, blood-gas and acid-base balance, gastro-enterology, haemostasis, and diagnostic test characteristics in domestic animals.

Laboratory diagnostics procedures 703 (LAS 703)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Veterinary Tropical Diseases
Period of presentation	Year

Module content

The module will focus on basic tests available in laboratory diagnostics for infectious and parasitic diseases. Focus will be placed on the interpretation of tests, issuing of certificates, validation of test procedures, quality assurance and laboratory safety. The course will include basic within the laboratory of the department.

Necropsy technique and interpretation 701 (NTI 701)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

(BVSc graduates only)

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

Production animal management 701 (PAM 701)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Production Animal Studies
Period of presentation	Year

Module content

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

Mechanisms of disease 711 (PAT 711)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

An advanced module covering the mechanisms behind disease processes.

Poultry health and nutrition 701 (PVT 701)

Module credits	30.00
NQF Level	08

Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Production Animal Studies
Period of presentation	Year

Module content

Advanced training in poultry health, production systems and nutrition.

Reproductive biology 701 (RPT 701)

Module credits	30.00
NQF Level	08
Language of tuition	Module is presented in English
Department	Production Animal Studies
Period of presentation	Year

Module content

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

Organic and inorganic toxicology 705 (TOK 705)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

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

Basic veterinary toxicology 706 (TOK 706)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.

Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

Introduction to the underlying principles of toxicology. Includes training in laboratory based toxicity testing and methodology

Porcine health, production and nutrition 701 (VKH 701)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Production Animal Studies
Period of presentation	Year

Module content

Advanced theoretical study in pig housing, nutrition and disease for animal housed both outdoor and intensive, specifically applicable to conditions of Southern Africa.

Veterinary milk and meat hygiene 701 (VPH 701)

Module credits	30.00
NQF Level	08
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

Advanced knowledge and application of veterinary meat (Red meat, Poultry, Ostrich, Wild Game, Crocodiles and fish) and milk (Raw milk and milk products) hygiene and food safety (including Zoonotic / food borne diseases). Also includes auditing, certification for export and the applicable interpretation of laboratory results. Emerging and re-emerging diseases.

The regulations and rules for the degrees published here are subject to change and may be amended after the publication of this information.

The General Academic Regulations (G Regulations) and General Student Rules apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the

General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations.