

University of Pretoria Yearbook 2025

MSc specialising in Veterinary Industrial Pharmacology (Coursework) (08251018)

Department Paraclinical Sciences

Minimum duration of study 2 years

Total credits 180

NQF level 09

Programme information

Also consult the General Academic Regulations G30 – G41 and Faculty regulations.

There will **only be an intake of new students every second year**.

It remains the applicant's responsibility to ensure that the degree they wish to apply for, will indeed be presented.

A coursework master's degree requires a high level of theoretical engagement and intellectual independence, and in some cases demonstration of the ability to relate knowledge to a range of contexts for professional practice.

This programme is offered as a course-work master's programme with modules in the advanced fundamentals of pharmacology and regulatory pharmacology. The course is designed to assist persons working in the field of regulatory veterinary pharmacology and covers training in the fundamentals (pharmacokinetics theory, basic pharmaceutics and pharmacodynamics theory), pharmacokinetic modelling, pharmacodynamics data analysis, veterinary legislation; preclinical toxicology, dossier evaluation; good laboratory practice, good clinical practice and good manufacturing practice.

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

The curriculum consists of two compulsory core modules (FAK 876 and VIP 800 for 40 and 50 credits, respectively) as well as a mini-dissertation (VIP 890 for 90 credits). In addition, students should also register for (and pass) the module Research methodology (VRM 813) (non-credit-bearing).

Note: The first year is dedicated to coursework modules whilst the second year is dedicated to the research work.

Also consult the General Academic Regulations G35 - G38.

- i. Each module will require a certain amount of contact sessions and the balance may be presented online. The detail of the contact sessions for each module is published in the study guides.
- ii. A minimum number of students could be set (as per discretion of the module coordinator) for the presentation of any given module. When the required minimum number of students for a certain module is not reached, the module will not be presented in that academic year but will be offered again in the following academic year. For some modules a maximum number of students who can enrol might be set. The details for each module are published in the study guides.

- iii. Students are required to confirm whether a module will be presented in any particular year. 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.

Admission requirements

1. Bachelor of Veterinary Science (or equivalent) degree
or
Relevant four-year Bachelor of Science in Agriculture degree
or
Relevant Bachelor of Science honours degree
or
relevant postgraduate diploma (on NQF-level 8)

Note:

1. An admissions examination may be required
2. The candidate may be required to submit proof of experience in their selected field of study

Additional requirements

- In cases where web based/online modules are offered, basic computer skills are required in order to successfully participate in the degree programme.
- In certain cases, it remains the prerogative of the head of department to require, in addition to the entrance requirements, the successful completion of an admissions test before registration.
- All international applicants whose first language is not English may be required to pass a proficiency test in English (TOEFL). Application and more information www.ets.org/toefl.
- Postgraduate applicants who have completed any foreign qualification must have all their previous post- school qualifications evaluated by the South African Qualification Authority (SAQA) before applying for postgraduate studies at the University of Pretoria: www.saqa.org.za

Examinations and pass requirements

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

The Faculty does make provision for supplementary and special examinations as per General Academic Regulations G37.4 and G37.5.

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

In addition to what is set out above, the following also applies to the coursework modules:

- i. Failure of either FAK 876 or VIP 800 core modules, the student will have to repeat the modules when they are

offered again. (Note: The 1st year of entry is every 2 years). This is stipulated in the study guide of each of the modules.

- ii. These students will be offered a special examination if they meet the minimum requirements, and an additional extra-ordinary examination if they meet the requirements stipulated in the study guide.

Additional examinations and pass requirements:

In addition to what is set out above under “Examinations and pass requirements”, the following also applies

- i. Failure of either FAK 876 or VIP 800 core modules, the student will have to repeat the modules when they are offered again (Note: The 1st year of entry is every 2 years).
- ii. Students will be offered a special examination if they meet the minimum requirements, and an additional extra-ordinary examination if they meet the requirements stipulated in the study guide.
- iii. If the student successfully completed VRM 813 in year 1, he/she may continue with the research project in year 2.

Examinations and pass requirements related to mini-dissertations

Also consult the General Academic Regulation G39 for Preparation and submission of dissertation, Technical editing of the dissertation, Evaluation of the dissertation, Appointment of the examination panel, Criteria for evaluation, Examiners’ reports, Finalisation of reports.

A mini-dissertation is submitted to the Head: Student Administration, before the closing date for the relevant graduation ceremonies as announced annually (i.e. 31 October or 31 March to qualify for the Autumn or Spring graduation, respectively), after permission is granted by the supervisor and co-supervisor(s). (Also consult the General Academic Regulation G39 with regard to the submission and technical editing of the thesis).

If a mini-dissertation is submitted after the due date specified above, the student takes the risk that the examination of the dissertation may be delayed and the student will not be considered for the graduation concerned. A student will only be allowed to graduate if the student has successfully complied with all the requirements for the particular programme.

The dissertation will be examined by one internal and one external examiner as stipulated by the UP regulations. The average mark of the two separate marks awarded by the examiners constitutes the final mark for the mini-dissertation.

The minimum pass mark is 50%. The Dean, on the recommendation of the relevant head of the department, may permit a candidate who has failed, to submit an amended mini-dissertation for final adjudication.

Compliance with degree requirements and degree privileges

Also consult the General Academic Regulations G40.

- i. A coursework master’s degree, will be conferred on a student only after the successful completion of every requirement of each component of the relevant degree programme, including the achievement of a pass mark for each of the prescribed coursework modules, the submission and successful evaluation of the mini-dissertation or other research-relevant output, and compliance with all the requirements for the particular programme.
- ii. A coursework master’s degree is not deemed to be completed if the electronic version of the mini-dissertation has not been submitted to the relevant faculty administration prior to the date of closure of the graduation/finalist list for the forthcoming graduation ceremony.
- iii. No one is entitled to any privileges pertaining to a coursework master’s degree 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.

Research information

Also consult the General Academic Regulation G39.

The coursework master's degree consists of coursework modules as well as a mini-dissertation which is divided equally between the research and coursework as 90 credits each.

In addition to the coursework modules, students should also register for (and pass) the module Research methodology (VRM 813) (non-credit-bearing).

It should be emphasized that a mini-dissertation is not a complete research-based master's dissertation and is of limited scope and extent. The content should cover enough work for a case report or short communication. The basic requirements and Faculty expectations of a coursework master's degree mini-dissertation are:

- i. The student should show the ability to undertake a research project and write up the project.
- ii. The student does not need to make an original contribution to science, but still show the ability to do research.
- iii. Please note that explicit hypothesis-testing, i.e. experimental work is not necessarily mandatory.

Candidates must submit a mini-dissertation which deals with an applied field of study. The topic is determined in consultation with the supervisor and the relevant head of department, and must be approved according to Faculty guidelines. The mini-dissertation is based on an applied research project or related research projects which need not be original), planned and reported by the candidate. Assistance with statistical processing, applied specialised procedures, etc. is allowed, but must be acknowledged.

Research undertaken is conducted in accordance with the University's Code of ethics for scholarly activities. All research proposals must be submitted for ethics clearance/approval/exemption to the relevant faculty research and/or research ethics committee. Faculty research ethics committees have the authority to consider and approve or reject research proposals within the guidelines of the general policy.

Retention and preservation of research data

Also consult the General Academic Regulations G39.

The data generated through the research conducted must be managed in accordance with the University of Pretoria's Research Data Management policy and the related Research Data Management procedure.

Non-disclosure of the contents of a study (Embargo): Where part or all of the contents of the master's study must remain confidential, the supervisor will be required to submit an application in writing to Faculty Postgraduate and Research committee setting out the grounds for such a request and indicating the duration of the period of confidentiality. This period would normally not exceed 2 (two) years. The committee considers the application and either approves it or refers it back to the supervisor. The faculty must keep record of the decisions and the embargo, and the information must be shared with the Department of Library Services.

Pass with distinction

Qualification with distinction: A coursework master's degree is awarded with distinction if a student meets the following requirements:

- a. Obtained a weighted average of at least 75% (not rounded) in the coursework modules needed to comply with degree requirements, and
- b. Obtained a final mark of 75% or above for the mini-dissertation; and
- c. Completed the qualification within the maximum period allowed for master's study, but not in less than the prescribed minimum period of one academic year. Note: the maximum allowable time is twice that of the prescribed duration time period in relation to postgraduate students who study part-time (i.e. study while

working full-time).

- d. In the case of a coursework master's degree, 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: Year 1

Fundamental modules

Research methodology 813 (VRM 813)

Module credits	0.00
NQF Level	09
Language of tuition	Module is presented in English
Department	Veterinary Tropical Diseases
Period of presentation	Semester 1 and Semester 2

Module content

A web-based introductory module in research methodology that includes planning and undertaking a research project or clinical trial, collecting and analysing data, scientific writing, and enabling preparation and presenting of a research protocol.

Core modules

Advanced fundamentals of pharmacology 876 (FAK 876)

Module credits	40.00
NQF Level	09
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

Scope and historical development of veterinary pharmacology.
 Veterinary pharmaceuticals and formulation theory.
 Pharmacokinetic theory, pharmacokinetic analysis and modelling.
 Bioequivalence theory and evaluation.
 Physicochemical and molecular basis of drug action.
 Dose response and calculation of dose response parameters.
 Pharmacological modulation of organ and body functions.
 Molecular basis of action and pharmacological effects of chemotherapeutic agents.
 Adverse drug reactions, interactions and pharmacovigilance.
 Comparative species pharmacology, pharmacogenomics and pharmacogenetics.
 Background on complementary medicines.
 Fundamentals of pharmacological research.

Veterinary industrial pharmacology 800 (VIP 800)

Module credits	50.00
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NQF Level	09
Prerequisites	FAK 876
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

Module content

Veterinary pharmaceutical discovery and development.

Non-clinical safety and preclinical toxicology. Clinical safety and efficacy evaluation. Good laboratory and clinical practices. Drug statutory and application requirement. Drug application submission. Regulatory procedures, evaluation and veterinary drug control. Drug residue risk assessment. Product planning, production management and quality assurance. Drug marketing, pricing and promotion. Technical services, training, extension, product support and complaint investigation.

Curriculum: Final year

Core modules

Mini-dissertation: Veterinary industrial pharmacology 890 (VIP 890)

Module credits	90.00
NQF Level	09
Prerequisites	No prerequisites.
Language of tuition	Module is presented in English
Department	Paraclinical Sciences
Period of presentation	Year

General Academic Regulations and Student Rules

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. The G Regulations are updated annually and may be amended after the publication of this information.

Regulations, degree requirements and information

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

University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQSF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.