

School of Pharmacy Division of Pharmaceutical Sciences

PROSPECTUS FOR POSTGRADUATE PROGRAMMES

INTRODUCTION:

- The Division of Pharmaceutical Sciences offers a Master of Pharmacy degree under the research areas of Pharmaceutics, Pharmaceutical Chemistry, Pharmacology & Toxicology and Radiopharmacy.
- Master of Pharmacy in Pharmaceutics, Pharmaceutical Chemistry and Pharmacology & Toxicology are offered as full-time, research based courses. These degrees are examined by a full dissertation.
- Master of Pharmacy in Radiopharmacy is a course based degree examined both by a course component and a mini dissertation.
- The Division also offers a doctoral degree (Doctor of Philosophy, PhD) under the above mentioned areas, examined by a thesis.

ENTRY REQUIREMENTS:

M. Pharm (Pharmaceutics, Pharmaceutical Chemistry, Pharmacology & Toxicology):

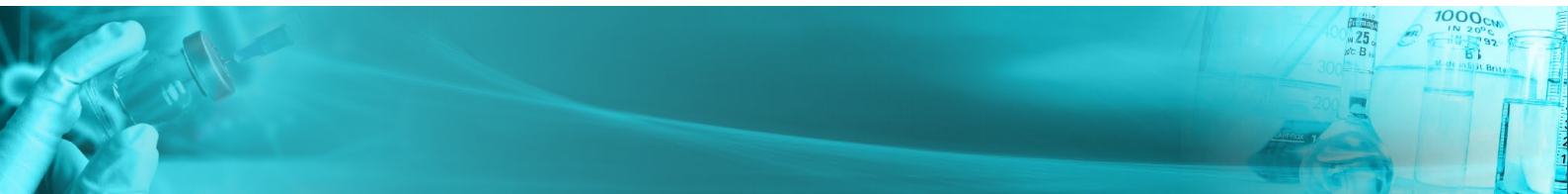
- Candidates must hold a B. Pharm degree or relevant honours degree.
- Candidates must have obtained at least 60 % as an average final mark for the relevant module(s) or course(s).
- Candidates who hold a qualification obtained outside of South Africa must submit an evaluation of foreign certificate from the South African Qualifications Authority (SAQA).

M. Pharm (Radiopharmacy)

- Candidates must hold a B. Pharm degree.
- Candidates must have obtained at least 60 % as an average final mark for the relevant module(s) or course(s).
- Candidates should preferably be registered with the South African Pharmacy Council (SAPC) or equivalent if working in a foreign country.
- Candidates who hold a qualification obtained outside of South Africa must submit an evaluation of foreign certificate from the South African Qualifications Authority (SAQA).

PhD

- Candidates must hold a master's degree or equivalent.
- Candidates should have sufficient knowledge of the field of study before being considered for doctoral study.
- Candidates who hold a qualification obtained outside South Africa must submit the evaluation of foreign certificate from the South African Qualifications Authority (SAQA).



SELECTION CRITERIA:

Applicants will be screened after the closing date for applications. Qualifying applicants will be invited for the final process of selection, which includes an interview and a written assessment. Only candidates, whose applications meet all the requirements by the due date, will be considered for selection. Selection is based on the combined score of a scientific writing skills assessment and a personal interview by a selection panel. The scientific writing skills assessment constitutes 60 % of the combined score and the personal interview 40 %. A minimum combined score of 60 % is required for consideration.

Please Note: Acceptance is subject to available capacity of the supervisors in the Division. Successful candidates will receive an official letter from the Dean of the School of Pharmacy through the secretariat of the Division of Pharmaceutical Sciences.

DURATION:

- A Master of Pharmacy degree can be completed within a minimum of two and a maximum of four years.
- A PhD can be completed within a minimum of three and a maximum of five years.

CURRICULUM:

| QUALIFICATION CODE | COURSE CODE | MODULE | NQF-L | CREDITS |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------|------------|
| MPRA 01 | M.Pharm (Pharmaceutics, Pharmaceutical Chemistry and Pharmacology & Toxicology) – Research & dissertation | | | |
| | MPMA090 | Master of Pharmacy | 9 | 180 |
| MPRA 01 | M.Pharm (Radiopharmacy) Professional degree – Coursework and mini dissertation | | | |
| | MPLP090 | Pharmaceutical Care, Laboratory Tests and Pharmacokinetics | 9 | 6 |
| | MRRR090 | Radiopharmacology, Radiopharmaceutics and Radiochemistry | 9 | 40 |
| | MPOR090 | Practice of Radiopharmacy | 9 | 38 |
| | MMPR090 | Medical Physics for Radiopharmacy | 9 | 34 |
| | MNMR090 | Nuclear Medicine for Radiopharmacy | 9 | 40 |
| | MPMD090 | Radiopharmacy Research Mini Dissertation | 9 | 72 |
| | MRSE090 | Radiopharmacy Specific Elective | 9 | 10 |
| TOTAL CREDITS FOR THE QUALIFICATION | | | | 240 |
| PhD | | | | |
| 100 | ---- | Doctor of Philosophy in Pharmacy | 10 | 360 |

OBJECTIVES OF THE M. PHARM IN PHARMACEUTICAL SCIENCES:

The knowledge and skills mastered during this course will allow students to function in the pharmaceutical industry in areas of manufacturing/production, quality control and regulatory affairs, to do research and development at universities and/or research councils and with policy development.

Laboratory based research within the **Pharmaceutics, Pharmaceutical Chemistry and Pharmacology & Toxicology** domains will be required to:

- Study and understand the theory and techniques that will be used in the chosen research project
- Attend and pass the research methodology course
- Develop a protocol for the research project, following SMU Research Ethics Committee guidelines
- Perform the research using selected techniques (TLC, HPTLC, HPLC, MS, NMR, UV, FTIR, DSC, XRD, bioluminescence, microscopy, textural analysis, cytotoxicity, dissolution and molecular modelling etc.) and by following established protocols
- Attend workshops and seminars as required
- Write a dissertation
- Write articles from the research project for publication (including review article/s)
- Present your findings at a conference/seminar/symposium
- Fulfil the 400 hours of service required in case of an academic internship
- Assist in the dental, cardiology or clinic pharmacies to provide services as required
- Assist with facilitation and teaching in the B. Pharm programme in case of academic internship

OBJECTIVES OF THE M. PHARM IN RADIOPHARMACY:

The objective of this master's degree in Radiopharmacy is to train pharmacists with a specialised and practical knowledge of Radiopharmacy in the Southern African setting. The degree aims to provide a broad-based foundation in Radiopharmacy.

Students enrolled in the M. Pharm Radiopharmacy programme will be expected to:

- Attend all lectures and tutorials on Nuclear Medicine, Medical Physics, Radiopharmacy and the required Clinical Pharmacy modules (Pharmaceutical Care and Laboratory Tests, Pharmacokinetics and Pharmacodynamics) and pass the assessments for these modules
- Submit and present two Radiopharmacy assignments for assessment (assignment topics to be determined and communicated by the course coordinator)
- Submit five Nuclear Medicine case studies for assessment
- Attend and pass the research methodology course
- Develop a protocol for the research project, following SMU Research Ethics Committee guidelines
- Perform the research following established protocols and under the guidance of the research supervisor
- Attend workshops and seminars as required
- Complete the experiential learning required for this course and submit the completed practical log book for assessment
- Write a mini dissertation
- Write articles from the research project for publication (including review article/s)
- Present research findings at a conference/seminar/symposium
- Assist in Radiopharmacy service provision in the Dr. George Mukhari Academic Hospital (DGMAH) Nuclear Medicine Department
- Fulfil the 400 hours of service required in case of academic internship
- Assist in the dental, cardiology or clinic pharmacies to provide services as required
- Assist with facilitation and teaching in the B. Pharm programme in case of academic internship

OBJECTIVES OF THE PhD IN PHARMACY:

The purpose of the PhD programme in Pharmaceutical Sciences and Radiopharmacy is to prepare graduates to execute original, high-level research which encompass basic, applied and clinical investigations in the areas of drug delivery and targeting, drug discovery and radiopharmaceuticals.

Doctorate students enrolled in the program will be able to:

- Demonstrate the application of both methodological and contemporary research skills in the chosen area of research,
- Implement innovative research practices,
- Provide mentorship to master's students and demonstrate leadership skills in leading research teams,
- Write a Thesis for examination
- Write articles from the research project for publication (including review article/s)
- Present your findings at both a national and international conference/seminar/symposium

CONTACT DETAILS:

ACTING HEAD OF THE DIVISION

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DIVISIONAL SECRETARY

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Please Note: For application requirements and status please contact the divisional secretary, Ms. Jabu Mahlangu on the contact details provided above.

| SUPERVISORS | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
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