



الجامعة الوطنية - السودان
National University - Sudan

Master of Science in
**Hospital
Pharmacy**



Overview

The Master of Science in Hospital Pharmacy is a postgraduate program designed to prepare pharmacists for advanced practice in hospital pharmacy, clinical pharmacy, medicines management, pharmaceutical care, and healthcare administration. The program equips graduates with the knowledge, skills, and professional competencies required to optimize medication use, manage hospital pharmacy services, participate in multidisciplinary healthcare teams, conduct research, and contribute to healthcare policy and pharmaceutical management.

Program Objectives

The program aims to enable graduates to:

- Deliver advanced hospital pharmacy and pharmaceutical care services in healthcare institutions.
- Manage medicine procurement, storage, distribution, and utilization systems within hospitals.
- Participate effectively in multidisciplinary healthcare teams to improve patient outcomes.
- Provide evidence-based drug information and medication management services.
- Apply principles of Pharmacoeconomics, pharmacovigilance, and quality assurance in hospital practice.
- Conduct scientific research and contribute to the advancement of hospital pharmacy practice.

Learning Outcomes

Upon successful completion of the program, graduates will be able to:

- Apply advanced knowledge of hospital pharmacy practice and pharmaceutical care.

- Evaluate patient medication therapy and participate in therapeutic decision-making.
- Manage hospital pharmacy operations, including procurement, inventory control, and drug distribution.
- Provide evidence-based drug information and medication review services.
- Monitor medication safety through pharmacovigilance and antimicrobial stewardship activities.
- Apply principles of quality assurance, legislation, and healthcare management in pharmacy practice.
- Communicate effectively with patients, physicians, nurses, and other healthcare professionals.
- Conduct scientific research, analyze data, and disseminate findings through reports and presentations.
- Participate in formulary management, therapeutic committees, and healthcare policy development.

Admission Requirements

Applicants must satisfy the regulations of the Ministry of Higher Education and Scientific Research and the Faculty of Graduate Studies and Scientific Research.

Eligible applicants include holders of:

- Bachelor of Pharmacy (B.Pharm) or equivalent from a recognized university.
- A minimum grade of Good (CGPA $\geq$ 2.50/4.00 or equivalent).
- Registration with the Sudan Medical Council or relevant professional authority.
- Preference may be given to applicants with experience in hospital pharmacy practice.
- Successful completion of an admission interview.
- Submission of two references (one academic and one professional).

Program Structure

Duration: Two Academic Years (Four Semesters)

Total Credits: 100 Credit Hours

Curriculum Structure

The curriculum consists of 100 credit hours distributed over four semesters.

Semester One (25 Credit Hours)

- Research Methodology
- Basic Statistics
- Pharmaco-informatics and Communication Skills
- Pharmacoepidemiology and Biostatistics
- Pharmacotherapy I
- Pharmacotherapy II
- Clinical Pharmacokinetics and Therapeutic Drug Monitoring
- Foundations of Clinical Science
- Pharmacotherapy in Patient Care

Semester Two (25 Credit Hours)

- Practice of Hospital Pharmacy and Health Services Management
- Pharmacoeconomics
- Hospital Supply Management
- Dosage Form Design and Biopharmaceutics
- Pharmaceutical Chemistry and Analysis
- Advanced Medicinal Chemistry
- Current Developments in Health and Biotechnology
- Pharmacotherapy and Interpretation of Clinical Data & Medication Review
- Medicines Management and Pharmaceutical Care

Semester Three (26 Credit Hours)

- Internal Medicine Clerkship
- Cardiology and Pulmonary Clerkship
- Ambulatory Care Clerkship

- Surgery and Critical Care Clerkship
- Endocrinology Clerkship
- Pediatrics Clerkship
- Psychiatric Clerkship
- Oncology Clerkship
- Total Parenteral Nutrition (TPN) Clerkship

Semester Four (24 Credit Hours)

- Introduction to Clinical Research
- Journal Club
- Project Work (Thesis)
- Project Progress and Seminar

Teaching and Learning Methods

- Lectures
- Tutorials
- Seminars
- Workshops
- Case-Based Learning
- Clinical Rotations and Hospital Rounds
- Clerkships and Experiential Training
- Journal Clubs
- Independent Research
- Thesis Supervision and Seminars

Language of Instruction

English

Career Opportunities

Graduates may pursue careers as:

- Hospital Pharmacists

- Clinical Pharmacists
- Medicines Information Specialists
- Pharmaceutical Care Coordinators
- Pharmacovigilance Officers
- Antimicrobial Stewardship Pharmacists
- Hospital Pharmacy Managers
- Pharmaceutical Supply Chain Managers
- Clinical Research Associates
- Academic and Teaching Staff
- Healthcare Policy and Pharmaceutical Management Consultants
- Regulatory Affairs and Quality Assurance Professionals

Award

Upon successful completion of all academic, clinical training, and research requirements, graduates will be awarded the degree of Master of Science in Hospital Pharmacy (MSc Hospital Pharmacy) from the National University – Sudan.

For further information, please contact the Faculty of Graduate Studies and Scientific Research, National University – Sudan:

Website: <https://postgraduate-pa.nu.edu.sd/>

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