

The Master of Science in Health-System Pharmacy at the University of North Carolina

Through its teaching, research and public service, the University of North Carolina at Chapel Hill is an educational and economic beacon for the people of North Carolina and beyond. The University of North Carolina at Chapel Hill was the nation's first state university to open its doors and the only public university to award degrees in the 18th century. Today, Carolina is home to almost 28,000 students including over 10,000 professional and graduate students.

The 729-acre central campus includes the two oldest state university buildings, Old East and Person Hall. Old East and Playmakers Theatre, an 1852 Greek-revival building, are National Historic Landmarks. The University is located near the center of the state, about three hours by car from the North Carolina coastline and about three hours from the Appalachian Mountains.

The American Society of Landscape Architects selected the Carolina campus as one of the most beautifully landscaped spots in the country. That listing is among the praise affirming the charm of mighty oaks, majestic quadrangles, brick sidewalks and other landscaping synonymous with UNC.

The UNC Eshelman School of Pharmacy

The UNC Eshelman School of Pharmacy is committed to advancing health care through innovation and collaboration in pharmacy practice, education, research, and public service.

The School provides students with a wide range of opportunities. A world-class University, a model Area Health Education Center (AHEC) system, an award-winning Hospital system, and an international center for pharmaceutical research and development, Research Triangle Park, create one of the most dynamic centers of learning in the nation.

- U.S. News and World Report ranks the UNC Eshelman School of Pharmacy's PharmD program in the top three in the nation.
- In 2005, the School of Pharmacy received \$5.8 million in funding from the National Institutes of Health, ranking fourteenth among the nation's pharmacy schools.
- School of Pharmacy researchers received three NIH roadmap grants in 2005.

Annually, the School educates 500 professional students and 100 graduate students, post-docs, residents, and fellows. School graduates work in many dynamic fields, including academia, pharmaceutical sales, drug development and research, community and health-system pharmacy, and long-term and managed-care pharmacy.

Our location on the UNC Health Affairs campus is a powerful advantage. The School of Pharmacy is adjacent to the Schools of Dentistry, Medicine, Nursing, Public Health, and Social Work, as well as the UNC Health Care System and the Health Sciences Library. UNC is one of only a few universities in the nation to offer a full complement of health professions programs, giving the School of Pharmacy numerous opportunities for collaborative teaching, practice, and research.

In addition, the School of Pharmacy is close to the basic science departments: biochemistry and biophysics, biology, chemistry, computer science, genetics, pharmacology, and physics. These departments include groups focused on cancer, cystic fibrosis, infectious diseases, genetic medicine, nanotechnology, neuroscience, and tissue engineering.

The UNC Gillings School of Global Public Health

A portion of coursework in the Master of Science in Health-System Pharmacy will be taught by the faculty of the Department of Health Policy and Administration, so we thought prospective graduate students would benefit from learning about our colleagues at the UNC Gillings School of Global Public Health.

The UNC Gillings School of Global Public Health is located in Chapel Hill on UNC's south campus, around the corner from UNC Hospitals and neighbor to the schools of Medicine, Nursing, Dentistry and Pharmacy. In this inspiring atmosphere, faculty guide students in science-based research and studies. Students and faculty conduct groundbreaking research, and find ways to translate it into practice.

The school offers both undergraduate and graduate programs in traditional classrooms and through the latest distance-education technology. Facilities include a new state-of-the-art research center.

The School of Public Health has combined nearly 70 years of experience with a passion for teaching, research and practice, all in a crusade to improve local, national and global health. Their positive results help us remain a national leader, ranked the top *public* school of public health by *U.S. News and World Report* (2003). The School tied for second with Harvard in top schools of public health overall (including public and private universities). Schools of public health are ranked about every three years. The Department of Health Policy and Administration's health services administration program was ranked 2nd best by *U.S. News'* annual graduate school rankings (2003).

Overview of the Master of Science in Health-System Pharmacy Program

History

The Master of Science in Hospital Pharmacy was offered previously at the University of North Carolina from 1969 to 1996. We are proud to begin offering the Master's degree again beginning in the Fall, 2008. Successful graduates will join over 200 past graduates who have careers spanning numerous pharmacy directorships, hospital executive positions, executive informatics positions, clinical leadership positions, and many more directions, both domestically and internationally.

Program Goal

The goal of the Master of Science in Health-System Pharmacy is to prepare pharmacists for leadership positions in health care. In order to accomplish this goal, the program will provide students with the knowledge, skills and experiences necessary to assume a variety of roles and responsibilities. Our graduates should be able to serve as vibrant, committed professionals with a focus on improving patients' health, healthcare delivery and the profession of pharmacy. This will occur through both didactic education and experiential opportunities in the workplace.

Competencies

A graduate from the program will:

- a) have a vision for the future practice of pharmacy and possess the tools to realize that vision;
- b) be clinically competent in the practice of pharmacy;
- c) be able to envision, plan, implement, coordinate and monitor pharmaceutical care and operational services;
- d) understand and assume the managerial and financial responsibilities in health system pharmacies;
- e) be effective stewards of human resources including recruitment, mentoring, evaluating and leading professionals and technical support staff;
- f) be adaptive to changes and demands for health system pharmacy practice and the health care environment in general;
- e) be strategic thinkers and planners who see challenges as opportunities to contribute to improving health care delivery; and
- f) be consistently ethical and professional in their practice.

Degree Requirements

Curriculum

The core curriculum for the Master of Science in Health-System Pharmacy Program will consist of course work in advanced topics with human resource management, health systems financial management, medication safety and quality improvement, health systems pharmacy operations and much more.

Core School of Pharmacy Classes:

- Advanced Health Systems Pharmacy
- Medication Safety and Quality Improvement
- Managing the Practice of Pharmacy
- Seminar
- Research

Elective School of Public Health Classes

- Biostatistics
- Human resources
- Financial management
- Management accounting
- Strategic planning
- Organizational behavior,
- Marketing
- Health law
- Operations research

Supervised Project in Health System Pharmacy

Graduate students will be encouraged to develop extensive skills and expertise in specific segments of pharmacy administration which are of personal interest. The chosen area(s) of interest will be emphasized throughout both the didactic and experiential portions of the program over the two years of study with the guidance of their mentor and academic and experiential program advisors. Students will take a minimum of four (4) credit hours of Supervised Project in Health-System Pharmacy during their second year to accomplish the project objectives which is a requirement for the Master of Science degree.

This project will serve in lieu of a Master's thesis. The student will need to identify at a minimum a mentor, a faculty advisor, a residency advisor and the topic of their supervised project early in their first year. The project must be completed by May 10 of their second year and their completed paper of their project and findings must be submitted by the aforementioned deadline. The graduate student is expected to choose a project which results in a publication in a peer-reviewed professional journal.

Final Written Comprehensive Examination

A comprehensive examination will be administered to all graduate students prior to the completion of the last semester of their program. The examination is intended to validate their ability to apply the knowledge and experience gained throughout the program in coursework and experiential components of their education and training.

Graduation Requirements

Graduates will meet the Graduate School's requirements for academic eligibility and the program requirements described in this document, which are:

- a.) completion of all required courses with no grades of "F" and fewer than nine hours of "L";
- b.) complete the supervised project in health system pharmacy; and satisfactory completion of the comprehensive Master's examination

Additional graduation requirements are listed in the Graduate School Handbook of the University of North Carolina at Chapel Hill (<http://handbook.unc.edu/>).

The Certificate of Residency is awarded by the health-system providing residency training. This will include both a PGY1 pharmacy practice and a PGY2 pharmacy administration residency certificate. Guidelines for completing the residency requirements are provided by each health-system pharmacy participating in the program, as well as by the UNC Eshelman School of Pharmacy.

Practice / Administrative Residency Requirements

Graduate students in this curriculum will be accepted into a two-year residency program to be completed simultaneously with coursework and related program requirements for the MS degree. The resident will have the opportunity to gain experience and develop expertise in all facets of the provision of comprehensive pharmacy services including direct provision of patient care services, leadership / administrative responsibilities, all aspects of pharmacy operations, medication safety and quality improvement, and scholarly endeavors. It is also expected that the residents will participate in state and national professional association activities.

Masters candidates will be expected to satisfy the requirements of an ASHP-accredited residency. Over the two-year duration of the program residents will complete the learning objectives of both PGY1 and PGY2 residency programs. Rotations will include the essential elements for a pharmacy practice residency to ensure competence as a qualified caregiver is achieved, but elective rotations will be planned based on the experience, needs and preferences of the graduate student as well as the sponsoring organization.

Residency programs include the following core training components:

- *Clinical Experience*

Maintenance of clinical competence during the graduate experience is essential to meeting the competency expectations of the graduate students. Considerable flexibility in pursuing clinical experiences throughout their first and second years will be afforded to sponsoring organizations and the graduate student based on the needs and career aspirations of the graduate student.

- *Leadership / Administrative Experience*

The majority of the second year will be dedicated to experiential learning and practical application of knowledge and experiences of the first year. During this year the graduate student develops expertise in departmental leadership and administration, quality improvement and patient safety, automation and informatics as it applies to pharmacy services, policy development, interdepartmental relationships and collaboration, human resource management, and current trends in the profession of pharmacy. Additional experiences may be acquired related to association management (NCAP) and regulatory governing organizations (NCBOP, NC Medicaid).