

**Doctor of Pharmacy and Master of Public Health
Joint Degree Program**

University of Florida

**College of Pharmacy
College of Health Professions
College of Health and Human Performance
College of Medicine**

January 19, 2001

DOCTOR OF PHARMACY/MASTER OF PUBLIC HEALTH

Rationale

The mission of the Master of Public Health (MPH) program is to contribute to the health of the nation by preparing students to become effective educators, researchers, and leaders in the prevention of disease and the promotion of health. The mission of the Doctor of Pharmacy (Pharm.D.) program in the College of Pharmacy includes statements regarding health education and prevention of disease which complement the mission of the MPH program. Specific outcome statements for the Doctor of Pharmacy degree program address:

- promotion of public health through cardiopulmonary resuscitation certification and poison prevention programs;
- promotion of public awareness of health and disease through immunization programs;
- provision of drug information and education materials to the public; and,
- provision of education on health-related topics to health professionals and the public.

Graduates of the joint degree program will blend knowledge and skills of both health care disciplines to better meet the challenges of being an effective educator, researcher, and leader in the prevention of disease and the promotion of health. Pharm.D. graduates will have a base of knowledge in pathophysiology, microbiology, immunology, pharmacology, medicinal chemistry, pharmacokinetics, pharmacotherapy, pharmacy health care systems, and pharmacy practice that will enhance the curriculum outcomes of the MPH program. This knowledge in combination with fundamental public health principles in biostatistics, epidemiology, environmental health, health services administration and behavioral and social sciences should prepare graduates to make significant contributions to the health care of citizens in our state and nation.

Program Objectives

The major focus of the Pharm.D./MPH program is to educate students to assume responsibilities as educators, researchers, and leaders by integrating their knowledge and skills in the delivery of pharmaceutical care with public health principles in one of the following areas:

- ***Public Health Management & Policy*** (College of Health Professions): Students learn public health leadership skills for effective management in health organizations and how to interpret and evaluate government policy affecting the health care system.
- ***Community Health Education*** (College of Health and Human Performance): Students learn to create solutions to community health problems by applying public health concepts and to develop and evaluate community health education programs.

- ***Epidemiology*** (College of Medicine): Students learn to analyze the distribution of disease and disability in different populations, to identify factors affecting health of communities and clinical populations, and to develop public health research programs.

Career Opportunities

Public Health is a progressive and dynamic field offering a wide variety of career opportunities. Health-related organizations are looking for individuals who have the training and qualifications to provide public health leadership, education, and research. Examples of settings for positions include community health centers, not-for-profit organizations offering health services, governmental agencies, and academic institutions.

The knowledge and skills of pharmacists in pharmaceutical science and clinical pharmacy together with the knowledge and skills in public health create an excellent foundation for graduates to seek competitive positions in the health care system. Graduates of the Doctor of Pharmacy and Master of Public Health joint degree program would be competitive for positions in numerous agencies and organizations with diverse responsibilities. Examples of positions include: surveillance coordinator for the Centers for Disease Control and Prevention; environmental health epidemiologist for a public health department; research associate in a center for community-based health strategies; project manager for management sciences for health; health economist; faculty position in environmental health sciences or in pharmacy health care administration; leader of health programs for university cooperative extension; health communications executive; director of health care analysis and outcomes research; and, administrator and/or practitioner in the Public Health Service.

Program Description

Candidates for this program must meet the entrance requirements and procedures for both the Doctor of Pharmacy degree program in the College of Pharmacy and the Master of Public Health program. Students interested in public health principles and the practice of pharmacy may obtain both degrees concurrently in five years after completion of a minimum of two years of prepharmacy course work. The joint program is not open to students who have already earned one of the degrees. A student must satisfy the curriculum requirements of each degree.

Participants in this joint degree program must begin their studies in the College of Pharmacy and complete the first two years of the Doctor of Pharmacy curriculum. The third year requires courses in the MPH program. During the fourth and fifth year students may register in both programs concurrently.

The joint degree curricula provide for a total of 36 credits for the MPH degree, of which up to 12 hours can be transferred from the pharmacy professional curriculum, including 10 hours of electives and 2 hours of clerkship counted toward the MPH special project. (Additional clerkship hours may be counted in the 10 hours of electives if the clerkship has a clear public health focus.)

Supervisory Committee

Each student in the PharmD/MPH joint degree program is required to have a supervisory committee consisting of two faculty members. The supervisory committee is designed to provide mentoring, monitor academic progress, assist in determining an appropriate project, and oversee the final comprehensive examination. The MPH supervisory committee for joint degree students will be comprised of one faculty member from the College of Pharmacy and one faculty member from the MPH graduate faculty outside of the pharmacy area. (Graduate faculty outside the MPH program can be considered as the second member with the approval of the program director.) One supervisory committee member serves as the committee chair and, to the fullest extent possible, should be a faculty member from the College of Pharmacy who preferably also holds an appointment on the University graduate faculty. Students must have a supervisory committee selected by the end of their second semester of full-time MPH study.

MPH Final Comprehensive Examination

Consistent with University of Florida Graduate School regulations, the MPH program requires a comprehensive examination. The comprehensive examination for the MPH program is designed to assess understanding of the basic principles and theories underpinning the five core areas of public health – biostatistics, environmental health, epidemiology, health services administration, and social and behavioral sciences – and to assess the student's ability to apply this knowledge to contemporary issues. The examination provides students with the opportunity to demonstrate broad-based knowledge in the field of public health and represents the culmination of the academic experience in the program.

The written comprehensive examination will typically occur between the 8th and 12th week of the graduation term. The exam includes four to six essay questions in the field of public health; questions will cover both general public health and pharmacy public health issues. It is expected that the student will demonstrate broad knowledge of public health as it applies to pharmacy public health for the specialty questions. The closed-book examination is four hours in length and is supervised by a faculty member in the public health program.

The student's two supervisory committee members are responsible for grading the comprehensive examination. If the two supervisory committee member disagree on whether the student should pass and can not resolve this difference via discussion with each other, the program director or his or her designee will also grade the examination and cast the deciding vote on the topic(s) in question. A student must pass all questions administered in order to successfully pass the comprehensive examination, and will be informed of the pass-no pass decision within two weeks of the examination.

If a student fails one or more questions, his or her supervisory committee will determine next steps based on responses on the written exam. In general, one of two

possibilities is considered: (1) the student will be required to participate in an oral examination; or (2) the student will be required to complete further academic preparation before re-examination. In the second case, the student will have to complete additional coursework (typically during the next semester) as determined by the supervisory committee. After fulfillment of all required additional academic work, the student will be eligible to participate in the next written examination.

Program Admission Requirements

Participants in this program must have completed a minimum of two years of prepharmacy coursework and two years of the Doctor of Pharmacy curriculum prior to enrollment in the MPH program. A baccalaureate degree prior to enrollment in the MPH program is not required for students in the joint Pharm.D./MPH program. The Doctor of Pharmacy degree does not require a prior baccalaureate degree. The educational requirements in the Doctor of Pharmacy degree program exceed those for a baccalaureate degree. Students interested in the joint degree program should have a minimum 3.0 grade point average in the two years of the Doctor of Pharmacy degree program. Students must be in the Doctor of Pharmacy program, have access to an appropriate computer, and have documentation of immunizations.

The essential criteria for the joint PharmD/MPH program are:

1. Candidates for the program must meet the entrance requirements for, and be accepted by, both the College of Pharmacy and the Master of Public Health Program..
2. The joint degree program is not open to students who have already earned either a PharmD degree or a MPH degree.
3. Students are responsible for the tuition for both degree programs.
4. The Graduate School will allow 12 credits of appropriate pharmacy courses (as determined by the faculty of the College of Pharmacy and the MPH Curriculum Committee) to be credited toward both the MPH and PharmD degrees.
5. College of Pharmacy courses that are to be counted toward the MPH degree must carry a grade of "B" or higher but will not be counted in the grade point average in the MPH Program.
6. Students enrolled in the PharmD/MPH joint degree program must attend the MPH orientation.
7. A student who does not complete the joint degree program may apply for the PharmD degree if he/she has satisfied the requirements of the PharmD degree as if he/she has not been a joint degree candidate. However, students in the joint degree program may not receive the MPH degree singly unless they meet all requirements for one of the other emphasis areas.
8. To facilitate student progress in the joint degree program, it is proposed that, to the fullest extent possible, the student's graduate supervisory committee include one faculty member from the College of Pharmacy who also holds a joint appointment in the Graduate School's MPH program.

9. Students must be registered for at least 3 Graduate School credit hours in the term in which they expect to graduate.

Program Application Materials

Students must submit the University Application Form for Admission to Graduate School. A copy of all transcripts, Graduate Record Examination (GRE) scores, TOEFL scores (if applicable, i.e., English is not the primary language), three letters of recommendation, an essay on career goals and program interest, copy of residency form, and relevant immunization forms are required.

Application Deadline

All application materials must be received by April 1 for the fall semester. Pharmacy students should express their interest in this program during the first professional year of study and seek the advice and direction of the faculty member in the Department of Pharmacy Health Care Administration who serves as Program Coordinator for the joint degree curriculum with the MPH program. Students should maintain regular contact with the Program Coordinator in the College of Pharmacy. The support and endorsement of the Department of Pharmacy Health Care Administration for the student's application is required.

For more information, please contact:

MPH Coordinator

and/or

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Curriculum for the Doctor of Pharmacy/Master of Public Health Program

Doctor of Pharmacy Degree Program

First Professional Year

<u>Fall Semester</u>	<u>Credits</u>
BCH 5000 Biochemistry and Molecular Biology	4
PHA 5100 Dosage Forms I	3
PHA 5560C Physiological Basis of Disease I	5
PHA 5722 Pharmacy Systems and Resources	2
PHA 5433 Fundamentals of Medicinal Chemistry	1
PHA 5941C Practicum I	1
	16
 <u>Spring Semester</u>	
PHA 5101 Dosage Forms II	2
PHA 5436 Structure and Function of Nucleotides	2
PHA 5561C Physiological Basis of Disease II	5
PHA 5752 Microbiology & Immunological Basis of Therapeutics	4
PHA 5781 Pharmacotherapy I	2
PHA 5515 Basic Principles of Pharmacology	1
PHA 5237 State and Federal Pharmacy Law	1
PHA 5942C Practicum II	1
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Second Professional Year

Fall Semester

PHA 5782 Pharmacotherapy II	5
PHA 5437 Medicinal Chemistry I	3
PHA 5516 Pharmacological Basis of Therapeutics I	4
PHA 5127 Dose Optimization I	2
PHA 5255 Medication Use Process	3
PHA 5943C Practicum III	1
	18

Spring Semester

PHA 5783 Pharmacotherapy III	5
PHA 5438 Medicinal Chemistry III	3
PHA 5517 Pharmacological Basis of Therapeutics II	4
PHA 5742C Professional Communications	2
PHA 5128 Dose Optimization II	2
PHA 5944C Practicum IV	1
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Master of Public Health Degree Program

Third Year – MPH Program

Summer Semester = 6 credits

Fall Semester = 9 credits

Spring Semester = 9 credits

Total Credits = 24*

*credit hours in the third year are approximate and will vary based on course selection/availability in the categories listed below

1. Public Health Core Coursework (15 credits)

Social and Behavioral Sciences (Select one course for 3 credits)

-HSC 6037 Philosophy and Principles of HSE 3 credits

-HSC 6604 Theories of Health Behavior 3 credits

-CLP 5314 Health Psychology 3 credits

Environmental Health Sciences (Select one course for 3 credits)

-EES 5415 Environmental Health 3 credits

-HSC 6216 Community and Environmental Health 3 credits

Epidemiology

-HSC 6507 Epidemiology 3 credits

Health Services Administration (Select one course for 3 credits)

-PHC 6105 Organization and Administration of Public Health Programs 3 credits

-HAS 5103 Introduction to the U.S. Care System 3 credits

Biostatistics (Select one course or sequence)

-STA 6200 Fundamentals of Research Design 2 credits and STA 6201 Analysis of
Research Data 3 credits

-STA 6176 Introduction to Biostatistics 3 credits

-STAXXXX Statistical Methods in Pharmacy 3 credits

2. Specialty: Community Health Education (9 credits) or
Public Health Management and Policy (9 credits) or
Epidemiology (9 credits)

Specialty electives may be transferred from approved pharmacy coursework*

3. Approved electives (6 credits)
May be transferred from approved pharmacy coursework*

*The total number of pharmacy electives transferred can not exceed 10 credits (plus 2 clerkship hours of special project - see final page)

Doctor of Pharmacy Degree Program

Third Professional Year (Fourth year of academic study)

Fall Semester

PHA 5784 Pharmacotherapy IV	3
<i>STA 5XXX Statistical Methods in Pharmacy*</i>	3
PHA 5211 Pharmaceutical Outcomes Management	3
PHA 5103 Dosage Forms and Contemporary Practice	2
PHA 5113 Therapeutic and Diagnostic Analysis	2
PHA 5104L Pharmaceutical Skills Laboratory I	2
<i>Electives in MPH program**</i>	3
	18

Spring Semester

(First 8 weeks)

PHA 5787 Pharmacotherapy V	3
PHA 5223 Pharmacy Law and Ethics	2
PHA 5105L Pharmaceutical Skills Laboratory II	1
<i>Electives in MPH program**</i>	3

(Second 8 weeks)

PHA 5000 Clerkships***	8
	17

** Up to a total of 12 credits of pharmacy electives/clerkships may be counted toward the MPH degree

Fourth Professional Year (Fifth year of academic study)

Summer Semester

PHA 5000 Clerkships**	12
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Fall Semester

PHA 5000 Clerkships**	16
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Spring Semester

(First 8 weeks)

PHA 5000 Clerkships**	4
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(Second 8 weeks)	
PHA 5788 Pharmacotherapy VI	2
PHA 5000 Pharmaceutical Outcomes Evaluation	2
Pharmacy electives**	2
PHC XXXX MPH graduate course for special project ***	4
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*** A special project (6 credits) is required for the MPH degree. The special project will be determined by the emphasis area selected. Special projects include research, scholarly papers, and internships. The exact project will be determined by the student with committee input and approval. The special project can be completed in the experiential phase of the Doctor of Pharmacy program inclusive of the last 8 weeks of the spring semester of the fourth professional year. In particular, special clerkships in areas that emphasize public health issues and principles can be arranged. Students may count 2 hours of pharmacy clerkship hours towards the special project but must take 4 graduate credit hours for the special project in the spring semester of the fourth professional year in order to satisfy the University rule about being registered in at least 3 credits of graduate work in the semester the student plans to graduate with the MPH degree.

Total credits for the Doctor of Pharmacy degree program = 146

Total credits for the MPH degree = 36

Dual counted credits = up to 12 credits of pharmacy coursework are counted toward the MPH degree.

The time frame for the PharmD/MPH joint degree program is five academic years of professional coursework inclusive of two summer semesters.

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