

## Doctor of Pharmacy/Master of Public Health Joint Degree Program

### Rationale

The Master of Public Health (MPH) program is designed to prepare students to become effective leaders, practitioners, researchers, and educators in public health. The College of Public Health and Health Professions offers the complete breadth of training needed for graduates to succeed in the challenging public health environment. Students can take advantage of this broad expertise to specialize in any of the five core areas of public health:

- *Biostatistics*—the application of statistical concepts and methods to biological and population-based research.
- *Environmental Health*—the identification, examination and amelioration of exposures in the environment.
- *Epidemiology*—the study of the frequency, distribution and determinants of disease, injury and disability.
- *Health Management and Policy*—the study of the theories and methods required for management of public health organizations; development of health policies and analysis of their effects on costs and access to health care.
- *Social and Behavioral Sciences*—the study of the effects of social and behavioral factors on population health; development, implementation and evaluation of interventions to improve 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.

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 the five core areas should prepare graduates to make significant contributions to the health of citizens in our state and nation.

## The Role of a Pharmacists with an MPH

The role of the pharmacists has evolved to include disease state management along with the medication dispensing process. A more population-based health care focus is also a component of modern day pharmacy practice. Pharmacists are now called upon to:

- help change and implement policy to provide safer medications to patients;
- educate and help patients manage diseases such as diabetes;
- conduct research to help better manage treatments for diseases such as cancer and HIV; and
- provide education on medication management such as drug interactions between prescription drugs and herbal supplements.

The knowledge and skills of pharmacists in pharmaceutical science and clinical pharmacy together with public health create an excellent foundation for graduates to seek positions in the health care system as it relates to pharmacotherapy and health promotion, disease prevention, and medication safety. Graduates of the Doctor of Pharmacy and Master of Public Health Joint Degree program would be more competitive for positions in numerous agencies and organizations such as:

- Official government agencies, like the Centers for Disease Control and Prevention (CDC) and state/local health departments;
- Not-for-profit organizations, like those which focus on heart disease, cancer and child health issues;
- The private sector, in such arenas as the pharmaceutical industry and health insurance companies; and
- Academic institutions.

## 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 pre-pharmacy course work. The Joint Degree 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 48 credits for the MPH degree and 146 credits for the Doctor of Pharmacy degree to be completed in five years. Twelve credits

of professional courses (PharmD) are counted toward the graduate degree (MPH) and 12 credits of graduate (MPH) courses are counted toward the professional (PharmD) degree. The “shared” courses between the two programs will be determined based on the student’s plan of study.

### Program Admission Requirements

Participants in this program must have completed a minimum of two years of pre-pharmacy 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 Pharm.D./MPH Joint Degree program. The Doctor of Pharmacy degree does not require a prior baccalaureate degree as 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.

### Program Application Materials to the MPH Program

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

At the time of application to the MPH program, a minimum of 3.0 GPA in the 60 hours of professional coursework during the first two professional years of study and at least a 1,000 combined verbal and quantitative score on the GRE are required. For international students, a TOEFL score of at least 550 on the written version or 213 on the computer-based version is required. Please refer to the MPH website at [www.mph.ufl.edu](http://www.mph.ufl.edu) for detailed information regarding additional admission criteria, application materials and procedures.

### Application Deadline

All application materials must be received by April 1<sup>st</sup> for the Fall semester. Pharmacy students should express their interest in the Pharm.D./MPH Joint Degree 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.

## Supervisory Committee

Each student in the Pharm.D./MPH Joint Degree program is required to have a supervisory committee by the end of the student's second semester. The supervisory committee is designed to provide mentoring, monitor academic progress, and provide guidance in development and conduct of a special project. The committee consists of one faculty member from the College of Pharmacy and one faculty member from the student's chosen concentration area in the MPH program. The College of Pharmacy faculty member will serve as the supervisory committee chair. Both committee members should hold University graduate faculty appointments.

## MPH Final Comprehensive Examination

Consistent with University of Florida Graduate School requirements, the MPH program requires a comprehensive examination to be taken in the student's semester of graduation. The comprehensive examination is designed to assess the understanding of the basic principles and theories underpinning the five core areas of public health 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.

<b>College of Pharmacy</b>	<b>Master of Public Health Program</b>
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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 5451 Clinical Biochemistry	4
PHA 5100 Dosage Forms I	3
PHA 5560C Physiological Basis of Disease I	5
<b><i>PHA 5727 Introduction to Pharmacy Health Care*</i></b>	<b>3</b>
PHA 5433 Fundamentals of Medicinal Chemistry	1
PHA 5941C Practicum I	1
	17

***\* May count toward MPH degree***

Spring Semester

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 5942C Practicum II	1
	18

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
<b><i>PHA 5719 Introduction to Quantitative Methods in Pharmacy*</i></b>	<b>3</b>
PHA 5943C Practicum III	1
	18

***\* May count toward MPH degree***

Spring Semester

PHA 5783 Pharmacotherapy III	5
PHA 5438 Medicinal Chemistry III	3
PHA 5517 Pharmacological Basis of Therapeutics II	4
<b>PHA 5742C Professional Communications in Pharmacy Practice*</b>	<b>2</b>
PHA 5128 Dose Optimization II	2
PHA 5944C Practicum IV	1
	17

**\*May count toward MPH degree**

***Master of Public Health Degree Program***

Third Professional Year

Summer Semester = 6  
Fall Semester = 12 credits  
Spring Semester = 12 credits  
Summer Semester = 6 credits  
Total Credits = 36

## ***Doctor of Pharmacy Degree Program***

Fourth Professional Year

### Fall Semester

PHA 5784 Pharmacotherapy IV	3
<b>PHA 5226 Evidenced- Based Pharmacy*</b>	<b>4</b>
PHA 5103 Dosage Forms and Contemporary Practice	2
PHA 5113 Drug Therapy Monitoring and Pharmacogenomics	2
PHA 5104L Pharmaceutical Skills Laboratory I	2
<b>PHA 5239 Legal and Organizational Environment of Medicines Uses*</b>	<b>3</b>
	16

***May count toward MPH degree\****

### Spring Semester

(First 8 weeks)

PHA 5787 Pharmacotherapy V	3
PHA 5105L Pharmaceutical Skills Laboratory II	1
<b>PHA 5267 Critical Appraisal of Pharmacoeconomic Studies*</b>	<b>1</b>
Pharmacy elective**	2

***\*May count toward MPH degree***

(Second 8 weeks)

PHA 5000 Clerkships***	8
	17

\*\* Up to 6 credits of pharmacy electives may be counted toward the MPH degree

### Summer Semester

PHA 5000 Clerkships***	12
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## Fifth Professional Year

### Fall Semester

PHA 5000 Clerkships***	16
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### Spring Semester

(First 8 weeks)

PHA 5000 Clerkships***	8
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(Second 8 weeks)

PHA 5788 Pharmacotherapy VI	2
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PHA 5352 Herbal Medicines	2
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Pharmacy electives**	4
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\*\*\* A special project (6-9 credits) is required for the MPH degree. The special project will be determined by the emphasis area selected. Special projects include research 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. Please consult your MPH Student Handbook and/or Supervisory Committee for details on completing your Special Project requirements. Special clerkships in areas that emphasize public health issues and principles can be arranged.

### Required final

Total credits for the Doctor of Pharmacy degree program = 146

Total credits for the MPH degree = 48

Dual counted credits = 6 credits for the special project and up to 6 credits of pharmacy coursework as specified above may count toward the MPH degree.

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