## Emphasis - Pharmacy Administration <br> - Ph.D. in Pharmaceutical Sciences

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## Ph.D. in Pharmaceutical Sciences Description

The Ph.D. in pharmaceutical sciences can be completed with an emphasis in environmental toxicology, medicinal chemistry, pharmaceutics, pharmacology, pharmacognosy, or pharmacy administration.

## Minimum Total Credit Hours: 57 <br> Course Requirements

Requirements for each emphasis area are given in the respective program description sections.

## Emphasis - Pharmacy Administration <br> Description

The Department of Pharmacy Administration prepares graduates to be social and behavioral scientists who apply and develop theories to understand aspects of the health care arena and its participants. Examples of specific areas of inquiry include the marketing and economics of pharmaceuticals, patient and provider behaviors in the health care system, management strategies within health systems, the health outcomes associated with using pharmaceuticals, and the roles of pharmacists in delivering and managing health care. This scientific discipline is particularly interested in how these areas are influenced by pharmacists and other health care providers, pharmaceutical manufacturers, governmental entities, and pharmaceuticals.
A graduate degree in pharmacy administration affords excellent career opportunities in a variety of settings. The graduate program has maintained an exceptional track record in placing graduates. Graduates of the program have obtained positions in academia, the pharmaceutical industry, managed care organizations, professional associations, consulting and marketing research firms, government agencies, hospitals, and health care journal publication agencies. In academia, the program has produced several chairs of pharmacy administration departments and deans of pharmacy schools nationwide. In the pharmaceutical industry, many alumni have quickly risen to senior management positions in marketing, health/pharmaceutical economics, and pharmacy affairs. Other graduates of the program have secured key positions in the federal and state governments and professional associations in pharmacy.

## Admission Requirements:

Application deadline: Feb. 1.
Applicants must have a B.S. degree in pharmacy, a B.S. degree in pharmaceutical sciences, or higher. (A degree in a discipline related to marketing, management, economics, or other health-related field may also be considered for admission upon demonstration of a commitment to pursuing a career in the field of pharmacy or the pharmaceutical industry.) College transcripts with a minimum of a B average ( 3.0 on a 4.0 scale) are required. Applicants must take and submit the scores from either the GRE or the GMAT. International applicants also must take the TOEFL examination and score at least 600 (paperbased test), 100 on the internet-based test, or 250 on the computer-based test. Three letters of recommendation, an interview, a resume, and a statement of purpose are used to evaluate candidates.
If an applicant has a master's degree, he or she may petition in writing to the department chair for transfer, substitution, or waiver of certain courses upon entry into the program. The faculty will evaluate the request, following the Graduate School policies, and determine which courses, if any, can be waived or substituted. If an applicant has completed a thesis, he or she is asked to provide a copy of the thesis for review to determine whether waiver of certain courses is acceptable. Substitution or waiver of courses will then be documented on the student's progression form.

## Program Objectives:

The graduate program in pharmacy administration has the following objectives for its graduate program:

- To prepare highly qualified graduate students for careers in academia, industry, and other settings with training in management, marketing, and economics of pharmaceuticals and pharmacy practice
- To maintain highly productive teaching and research programs that facilitate the acquisition of abilities necessary to create new knowledge
- To maintain a leadership role in state and national organizations relevant to the discipline
- To provide consultative services to pharmacists, the pharmaceutical industry, and other interested entities in the areas of faculty and graduate student expertise


## Goals/Mission Statement

- To prepare highly qualified graduate students for careers in academia, industry, and other appropriate settings with an emphasis on management, marketing, and economics of pharmaceuticals and pharmacy practice.
- To maintain highly productive teaching and research programs that allow the faculty and graduate students the freedom and opportunity to pursue their own research interests.
- To maintain a leadership role in state and national organizations relevant to the discipline.
- To provide consultative services to pharmacists, the pharmaceutical industry, and other interested entities in the areas of faculty and graduate student expertise.


## Course Requirements

The Ph.D. in pharmaceutical sciences with an emphasis in pharmacy administration offers three areas of specialization: management, marketing, or outcomes. Students select one area of specialization and then complete the course requirements as described below.

## Core Courses ( $\mathbf{3 0}$ hours of credit)

- Psy 603/Edrs 501/Soc 501 (Statistics)
- Phad 579-Primary Data Techniques
- Phad 688-Research Methods in Pharmacy Administration
- Phad 687-Secondary Data Techniques
- Phad 680-General Linear Models
- Phad 681-Applied Multivariate Analysis
- Phad 689-Pharmaceutical and Healthcare Policy
- Phad 693-Health Economics
- Phad 692-Drug Development and Marketing
- Phad 683-Advanced Pharmaceutical Marketing and Patient Behavior


## Electives ( 9 credits):

- Non-required 600- or 700-level Phad or non-Phad courses approved by adviser


## Non-Thesis Research (6 credits):

- Phad 698


## Emphasis Area

The Ph.D. in pharmaceutical sciences with an emphasis in pharmacy administration offers two areas of specialization: management or marketing. Students select one area of specialization and then complete the course requirements as described below.

## Marketing Track (12 hours)

- Mktg 650-Marketing Management
- Mktg 670-Consumer Behavior
- Bus 668-Customer Relationship Management
- Phad 692-Drug Development and Marketing OR
- Phad 683-Advanced Pharmaceutical Marketing and Patient Behavior


## Management Track (12 hours)

- Mgmt 672-Seminar in Global Business Strategy
- Mgmt 673-Seminar in Human Resources Management
- Mgmt 676-Seminar in Organizational Behavior
- Mgmt 679-Seminar on the History of Management Thought

Outcomes Track (12 hours)

- Phad 694-Pharmacoeconomics
- Phad 696-Pharmacoepiemiology
- Econ 607(402)-Eonometrics
- HP 646-Introduction to Epidemiology


## Other Academic Requirements

In addition to the course requirements, each student must participate in and complete an orientation to the discipline of pharmacy administration and register for departmental seminar (Phad 543/544) each semester ( 1 credit hour per semester). Each student must pass a comprehensive examination, prepare and successfully defend a dissertation prospectus, and complete and defend his/her dissertation project, which is based on original, independent research.
It is important to note that if an applicant has a master's degree, he or she may petition in writing to the department chair for transfer, substitution, or waiver of certain courses upon entry into the program. The faculty will evaluate the request, following the Graduate School policies, and determine which courses, if any, can be waived or substituted. If an applicant has completed a thesis, he or she is asked to provide a copy of the thesis for review to determine whether waiver of nonthesis research and other courses is acceptable. Substitution or waiver of courses will then be documented on the student's progression form.

