

# DOCTOR OF PHARMACY

## Program Overview

The practice of pharmacy is an integral part of total health care. The pharmacist serves as a vital source of drug use information for other health care professionals and members of the community. The special knowledge of the pharmacist can maximize the effectiveness of disease treatment and minimize the possibility of adverse effects that could develop during drug therapy of diseases.

Pharmacy practice environments are diverse and challenging. While many graduates pursue careers in community and hospital pharmacy, others choose careers in the pharmaceutical industry, research, government service, consultant pharmacy or other diverse professional specialties.

The principal goal of the pharmacy program, accredited by the Accreditation Council for Pharmacy Education, is to provide an educational experience that prepares graduates for careers in pharmacy. The curriculum provides a balance between theoretical principles, practical applications and structured practice experience. Since 1984, pharmacy graduates have enjoyed a placement rate near 100%.

## Pharmacy History

The first college of pharmacy in Des Moines was the Iowa College of Pharmacy. It was organized in 1882. This college affiliated with Drake University in 1887 and operated as one of the colleges of the University until 1906 when it was discontinued.

The Highland Park College of Pharmacy was organized in Des Moines in 1889. Highland Park College, in 1918, changed its name to Des Moines University, with the college of pharmacy continuing as an integral part of the university.

In 1927, the faculty of the College of Pharmacy of Des Moines University organized an independent college of pharmacy, the Des Moines College of Pharmacy. This college operated as an independent institution from 1927 until 1939, when the Des Moines College of Pharmacy Corporation was dissolved and the college's staff and facilities became part of Drake University.

## Educational Goals and Objectives

The purpose of the Pharmacy Professional Program is to provide the graduate with the relevant knowledge base, skills, attitudes, ethics and values to engage in the entry-level practice of pharmacy. The curriculum is designed to provide the graduate with competence in the following areas established by the Center for the Advancement of Pharmaceutical Education (CAPE):

**1.1. Learner (Learner)** - Develop, integrate, and apply knowledge from the foundational sciences (i.e., *pharmaceutical, social/behavioral/administrative, and clinical sciences*) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and *patient-centered care*.

**2.1. Patient-centered care (Caregiver)** - Provide *patient-centered care* as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).

**2.2. Medication use systems management (Manager)** - Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems.

**2.3. Health and wellness (Promoter)** - Design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.

**2.4. Population-based care (Provider)** - Describe how *population-based care* influences *patient-centered care* and influences the development of practice guidelines and evidence-based best practices.

**3.1. Problem Solving (Problem Solver)** – Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.

**3.2. Educator (Educator)** – Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.

**3.3. Patient Advocacy (Advocate)** - Assure that patients' best interests are represented

**3.4. Interprofessional collaboration (Collaborator)** – Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.

**3.5. Cultural sensitivity (Includer)** - Recognize *social determinants of health* to diminish disparities and inequities in access to quality care.

**3.6. Communication (Communicator)** – Effectively communicate verbally and nonverbally when interacting with an individual, group, or organization.

**4.1. Self-awareness (Self-aware)** – Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.

**4.2. Leadership (Leader)** - Demonstrate responsibility for creating and achieving shared goals, regardless of position.

**4.3. Innovation and Entrepreneurship (Innovator)** - Engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.

**4.4. Professionalism (Professional)** - Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society.

Upon graduation from the Drake University pharmacy program, the graduate also shall fulfill the outcomes of the Drake Curriculum.

## Requirements for Major

210 credits required.

The four-year professional program is preceded by two years of pre-professional coursework. The curriculum for the pre-pharmacy and professional programs can be viewed at <http://www.drake.edu/pharmacy/doctorofpharmacy/pharmdcurriculum/>. Please note that courses in the professional program may change.

Code	Title	Hours
BIO 012 & 012L	GENERAL/PRE-PROFESSIONAL BIOLOGY I and GENERAL/PRE-PROFESSIONAL BIOLOGY I LAB	4

BIO 095	MEDICAL MICROBIOLOGY	3	PHAR 172	LITERATURE IN EVALUATION METHODS	3
CHEM 001 & CHEM 003	GENERAL CHEMISTRY I and GENERAL CHEMISTRY I LAB	4	PHAR 173	APPLIED SOCIAL AND ADMINISTRATIVE PHARMACY	3
CHEM 002 & CHEM 004	GENERAL CHEMISTRY II and GENERAL CHEMISTRY II LAB	4	PHAR 174	MANAGEMENT IN PHARMACY	3
CHEM 097 & CHEM 098	ORGANIC CHEMISTRY I and ORGANIC CHEMISTRY I LAB	4	PHAR 175	CONTINUING PROFESSIONAL DEVELOPMENT V	2
CHEM 108 & CHEM 110	ORGANIC CHEMISTRY II and ORGANIC CHEMISTRY II LAB	4	PHAR 176	CONTINUING PROFESSIONAL DEVELOPMENT VI	2
ENG 052	PUBLIC VOICES	3	PHAR 184	ADVANCED PHARMACY SKILLS AND APPLICATIONS I	2
FYS 0--	First Year Seminar	3	PHAR 185	ADVANCED PHARMACY SKILLS AND APPLICATIONS II	2
HSCI 060	STATISTICS IN HEALTH SCIENCES	3	PHAR 190	THERAPEUTICS I	3
HSCI 141 & 141L	HUMAN ANATOMY and HUMAN ANATOMY LAB	4	PHAR 191	THERAPEUTICS II	5
MATH 050	CALCULUS I	3	PHAR 192	THERAPEUTICS III	5
PHAR 011	CAREER, ACADEMIC, AND PROFESSIONAL SUCCESS (CAPS) I: COLLEGE CONNECTIONS	1	PHAR 285	EXPERIENTIAL ROTATION BLOCK	22
PHAR 031	CAREER, ACADEMIC, AND PROFESSIONAL SUCCESS (CAPS) II: COMMUNITY CONNECTIONS	1	PHAR 285	EXPERIENTIAL ROTATION BLOCK	18
PHAR 051	CAREER, ACADEMIC, AND PROFESSIONAL SUCCESS (CAPS) III: PROFESSIONAL CONNECTIONS	0.5	General Electives		26
PHAR 071	CAREER, ACADEMIC, AND PROFESSIONAL SUCCESS (CAPS) IV: CAREER CONNECTIONS	0.5	Pharmacy Professional Electives		5
PHAR 122	CONTINUING PROFESSIONAL DEVELOPMENT I	1	Written Communication AOI		3
PHAR 123	CONTINUING PROFESSIONAL DEVELOPMENT II	1	<b>Total Hours</b>		<b>210</b>
PHAR 125	PHYSIOLOGY	4	General Education Electives: Students complete the Drake Curriculum requirements and other credits for a total of 26 credits. Drake Curriculum requirements not fulfilled through required coursework:		
PHAR 130	BIOCHEMISTRY	4	<ul style="list-style-type: none"> <li>• Artistic Literacy AOI</li> <li>• Historical Foundations AOI</li> <li>• Global and Cultural Understanding AOI</li> </ul>		
PHAR 131	INTRODUCTION TO PHARM SCIENCES	3	Professional Electives: Five credits are required and completed during the professional program.		
PHAR 132 & 132D	PATHOPHYSIOLOGY and PATHOPHYSIOLOGY DISCUSSION	4	P1 students are required to complete 40 hours of IPPE for Hospital/ Institutional Practice I during the summer between the P1 and P2 years, and complete 80 hours of IPPE for Community Practice II during the summer between the P2 & P3 year.		
PHAR 133 & 133D	PRINCIPLES OF DRUG ACTION I and PRINCIPLES OF DRUG ACTION I DISCUSSION	5	<b>Admission Requirements</b>		
PHAR 134 & 134D	PRINCIPLES OF DRUG ACTION II and PRINCIPLES OF DRUG ACTION II DISCUSSION	5	Students may apply to the College of Pharmacy and Health Sciences as pre-pharmacy students. Students admitted to the College of Pharmacy and Health Sciences as pre-pharmacy students are selected from a pool of applicants who have met a priority application deadline of Dec. 1. Students admitted into Drake's pre-pharmacy program are offered the Drake Direct Admission, through which students receive full consideration for the professional program. In addition, they are assigned a pharmacy faculty advisor, are able to belong to professional student organizations, and participate in orientation courses and interview preparation activities. The PCAT is not required. Additional information is available at <a href="http://www.drake.edu/pharmacy/pre-pharmacy/pre-pharmacyadmission/">www.drake.edu/pharmacy/pre-pharmacy/pre-pharmacyadmission/</a> . ( <a href="http://www.drake.edu/pharmacy/pre-pharmacy/pre-pharmacyadmission/">http://www.drake.edu/pharmacy/pre-pharmacy/pre-pharmacyadmission/</a> )		
PHAR 135 & 135D	PRINCIPLES OF DRUG ACTION III and PRINCIPLES OF DRUG ACTION III DISCUSSION	4	Students who are not selected for pre-pharmacy admission to the College of Pharmacy and Health Sciences may be admitted to their second choice program. These students may apply for admission to the professional level of the pharmacy program once all prerequisites are completed. The PCAT is not required for admission.		
PHAR 138	PHARMACEUTICAL CALCULATIONS	2	Students who have completed the pre-pharmacy course requirements at other institutions may also apply to the professional program.		
PHAR 140	PHARMACEUTICS I	2			
PHAR 141	PHARMACEUTICS II	3			
PHAR 142	BASIC PHARMACOKINETICS	3			
PHAR 143	THERAPEUTIC DRUG MONITORING	2			
PHAR 144	BASIC PHARMACY SKILLS AND APPLICATIONS I	2			
PHAR 145	BASIC PHARMACY SKILLS AND APPLICATIONS II	2			
PHAR 149	IMMUNIZATIONS	1			
PHAR 154	INTERMEDIATE PHARMACY SKILLS AND APPLICATIONS I	2			
PHAR 155	INTERMEDIATE PHARMACY SKILLS AND APPLICATIONS II	2			
PHAR 162	PHARMACY LAW AND ETHICS	3			
PHAR 167	CONTINUING PROFESSIONAL DEVELOPMENT III	1.5			
PHAR 168	CONTINUING PROFESSIONAL DEVELOPMENT IV	1.5			
PHAR 169	SELF CARE AND NON-PRESCRIPTION THERAPIES	3			
PHAR 171	HEALTH CARE SYSTEMS AND POLICIES	3			

All students desiring to enter the professional program must complete the Pharmacy Centralized Application Services ([www.PharmCAS.org](http://www.PharmCAS.org)) (<http://www.pharmacas.org/>) application. The PCAT is not required for admission to the professional program.

Additional information regarding the admission process for pre-pharmacy and professional programs can be viewed at [www.drake.edu/pharmacy/pre-pharmacy/pre-pharmacyadmission](http://www.drake.edu/pharmacy/pre-pharmacy/pre-pharmacyadmission) (<http://www.drake.edu/pharmacy/pre-pharmacy/pre-pharmacyadmission/>).

## Regulations and Academic Requirements

Pharmacy students should become familiar with the General Information section of this catalog, which covers many regulations that affect all Drake University students. The College of Pharmacy and Health Sciences also has a number of specific regulations and requirements that must be met to progress through the pharmacy curriculum. Some of these are listed below; others are available in the Pharmacy Student Handbook at Pharmacy Student Handbook (<http://www.drake.edu/cphs/handbookspolicies/>).

Many pharmacy courses have prerequisite requirements. Admission to a course is denied if prerequisite courses have not been successfully completed. Therefore, deviations from the curriculum as it is structured require careful consideration. Course prerequisites may be found in the course descriptions area of the catalog.

Pharmacy students may apply a maximum of nine hours of elective coursework on a credit/no credit basis toward graduation. Courses regularly graded on a credit/no credit basis are not included within the nine-hours maximum. The student must have a minimum cumulative GPA of 2.75 before registering in a course on a credit/no credit basis.

Candidates qualifying for the degree must complete the required credit hours for graduation and have at least a 2.00 cumulative GPA. The standard grading scale for pharmacy students enrolled in pharmacy-labeled courses is "A", "B", "C", "D" or "F". All courses in the pre-pharmacy curriculum and the first three years of the professional curriculum must be successfully completed before a student enrolls in fourth-year (final year) coursework.

Students may not progress onto rotations unless a "C" or better is earned in each required course. Students are permitted to retake a pharmacy required course for a passing grade (2.0 GPA or "C") one time only. Students who do not obtain a 2.0 (or "C") in a pharmacy required course after two attempts will be dropped from the Pharm.D. program. Once a student enters the professional program, all didactic coursework must be completed in four years. Students who are unable to complete the didactic course work in this time period will be dropped from the program.

All fourth-year pharmacy students are required to complete 40 weeks of experiential rotations (PHAR 285 EXPERIENTIAL ROTATION BLOCK) prior to graduation. During these experiential rotations, students apply pharmaceutical principles related to diagnosis, treatment and patient care; monitor drug utilization and drug therapy and interact with patients, physicians, nurses and other health care providers. Due to regulations at many of the experiential sites, the college will complete a criminal background check and drug screen prior to admission into the professional program and again prior to entering the experiential year. Students who have a history of a felony are referred to the State Board of Pharmacy where they plan to practice pharmacy to determine if their record would prohibit licensure. Experiential sites have the right to refuse to accept a student for rotations based on the results of the

criminal background check even if the history would not prohibit licensure as a pharmacist. Many of these sites also require that a copy of the background check is forwarded to them. Students who have positive drug screens and will be entering rotations will be referred to the Chemical Dependency Policy.

Candidates for the Doctor of Pharmacy degree are required to be in residence in the College of Pharmacy and Health Sciences for at least the last 30 credit hours before becoming eligible for graduation. Credit earned by examination may not be counted toward fulfillment of the last 30 credit hours.

Through the blended advising model, students will be assigned a faculty mentor and advising specialist who will support them on their journey to earning their degree. The advising specialist will co-create developmental spaces for students to meet their academic and personal goals. The faculty mentor will provide mentorship and guidance that supports professional aspirations.

The Office of Student Affairs and Enrollment Services is responsible for coordinating the registration process, verifying appropriate registration of courses, approving educational plan waivers and transfer credit requests, updating degree audits with regard to substitutions, waivers and transfer courses, answering student questions regarding registration, credit completion, course transfer process and study-abroad opportunities, serving as a resource for students in combined degree programs (M.B.A., M.P.A., J.D., M.S.L.D., M.P.H., H.S.H.I.A.) and coordinating and communicating opportunities for internship, study abroad, research and postgraduate study. The final responsibility for completion of graduation requirements, however, belongs to the student and, accordingly, each student should become familiar not only with the curriculum but also with the academic regulations of the college.