

ENTRY LEVEL PHARM D CURRICULUM

PROFESSIONAL REQUIREMENTS

The entry-level PharmD curriculum includes required sequences of coursework in physiology, pharmaceuticals and drug delivery systems, medicinal chemistry, biopharmacy, pharmacy practice, pharmacology and therapeutics, clinical pharmacokinetics, and pharmacy management. Additional courses relating to dietary supplements, herbal products, pharmacogenomics, nonprescription medications and jurisprudence are also required. Course pedagogical techniques include lectures, laboratories, recitations, case conferences, workshops, and Professional Experience Program rotations precepted by clinical faculty within ambulatory and inpatient practice sites. A thread of experiential activities, beginning in the first year, reinforces the didactic component of the curriculum, culminating in full-time advanced practice experiences in the final year. A minimum of 6 hours of professional electives are also required. The required coursework for the entry-level PharmD program and scheduling sequences are outlined below.

REQUIRED FIRST YEAR COURSES

- Pharmacy 6001 Introductory Pharmacy Practice Experience I
- Pharmacy 6002 Introductory Pharmacy Practice Experience II
 - Introductory pharmacy practice experiences. Students apply didactic pharmacy course work in a variety of pharmacy practice settings.
- Pharmacy 6010 Biopharmacy I & Pharmacy 6020 Biopharmacy II
 - A two-course sequence which provides the fundamental background in modern molecular life science required for pharmacy studies.
- Pharmacy 6050 Medicinal Chemistry I
 - The first in a two course sequence covering chemical and biochemical principles governing the properties of drugs.
- Pharmacy 6060 Medicinal Chemistry II
 - The second in a two course sequence covering chemical and biochemical principles governing the properties of drugs and an introduction of the application of immunology principles to pharmacology, therapeutics and patient care.
- Pharmacy 6080 Physiology I
- Pharmacy 6090 Physiology II
 - A two-course sequence presenting the application of physiology to the practice of pharmacy.
- Pharmacy 6210 Drug Delivery I
 - First of a two-course sequence. Principles that govern the design and use of solution dosage forms, including physiochemical properties, ionization, solubility and stability.
- Pharmacy 6220 Drug Delivery II
 - Second of a two-course sequence. Routes of drug administration and the physiologic and physiochemical factors that influence drug penetration, absorption and bioavailability.
- Pharmacy 6240 Pharmaceutical Calculations
 - Introduction to prescription terminology and pharmaceutical calculations; emphasis on measurement systems, conversions, percent preparations, units of concentrations, calculation of doses, dilutions, milliequivalents, and milliosmoles.
- Pharmacy 6260 Laboratory and Diagnostic Testing
 - Introduction of concepts in quantitative analysis and fundamental concepts of analytical measurement with a focus on laboratory technologies and assays relevant to the practicing pharmacist.
- Pharmacy 6610 Pharmacy Practice I
 - The first in a two-course sequence covering concepts fundamental to pharmacy practice. Topics include orientation to the profession, drug information communications, and professionalism.
- Pharmacy 6620 Pharmacy Practice II
 - The second in a two-course sequence covering concepts fundamental to pharmacy practice. Topics include

drug information, communications, professionalism, cultural competency, and the health care system.

REQUIRED SECOND YEAR COURSES

- Pharmacy 7003 Introductory Pharmacy Practice Experience III
- Pharmacy 7004 Introductory Pharmacy Practice Experience IV
 - Introductory pharmacy practice experiences. Students apply didactic pharmacy course work in a variety of pharmacy practice settings.
- Pharmacy 7110 Dietary Supplements and Herbal Products
 - An overview of the relevant scientific aspects of dietary supplements and herbal products.
- Pharmacy 7310 Clinical Pharmacokinetics I
- Pharmacy 7320 Clinical Pharmacokinetics II
 - A two-course sequence in clinical pharmacokinetics and pharmacodynamics and their application to pharmacotherapy.
- Pharmacy 7470 Pharmacology and Therapeutics I
- Pharmacy 7480 Pharmacology and Therapeutics II
 - The first two offerings in a four-course sequence in pharmacology, pathophysiology and pharmacotherapy providing a comprehensive study of the therapeutic effects, pharmacodynamics, mechanistic actions, and toxicological effects of important drug classes.
- Pharmacy 7740 Professional Practice Laboratory I & Pharmacy 7750 Professional Practice Laboratory II
 - A two-course professional practice laboratory sequence. Topics include preparation/dispensing of various dosage forms, communication, use of drug information resources, and use of instruments.

REQUIRED THIRD YEAR COURSES

- Pharmacy 7005 Introductory Pharmacy Practice Experience V
- Pharmacy 7006 Introductory Pharmacy Practice Experience VI
 - Introductory pharmacy practice experiences. Students apply didactic pharmacy course work in a variety of pharmacy practice settings.
- Pharmacy 7007 Introductory Pharmacy Practice Experience VII
 - Introductory pharmacy practice experiences. Students apply didactic pharmacy course work in a variety of pharmacy practice settings.
- Pharmacy 7240 Clinical Pharmacogenomics
 - Principles and techniques necessary to understand the role of genetic variation in the pharmacokinetics of drugs and therapeutic management of disease
- Pharmacy 7490 Pharmacology and Therapeutics III
- Pharmacy 7500 Pharmacology and Therapeutics IV
 - The last two offerings in a four-course sequence in pharmacology, pathophysiology and pharmacotherapy providing a comprehensive study of the therapeutic effects, pharmacodynamics, mechanistic actions, and toxicological effects of important drug classes.
- Pharmacy 7630 Nonprescription Therapeutics
 - An overview of nonprescription therapeutics with a focus on patient assessment, product recommendations and patient care plans.
- Pharmacy 7860 Pharmacy Practice Management

- The medication use system, resource management, and the economic evaluation of pharmaceutical services and pharmacoepidemiology.
- Pharmacy 7900 Pharmaceutical Jurisprudence
 - A study of the laws and regulations relating to the practice of pharmacy.

REQUIRED FOURTH YEAR COURSES

- Pharmacy 7008 Professional Activities
 - Independent study activities related to advanced pharmacy practice experiences.
- Pharmacy 7011-7019 Advance Pharmacy Practice Experiences I
- Pharmacy 7011-7019 Advance Pharmacy Practice Experiences II
- Pharmacy 7011-7019 Advance Pharmacy Practice Experiences III
- Pharmacy 7011-7019 Advance Pharmacy Practice Experiences IV
- Pharmacy 7011-7019 Advance Pharmacy Practice Experiences V
- Pharmacy 7011-7019 Advance Pharmacy Practice Experiences VI
- Pharmacy 7011-7019 Advance Pharmacy Practice Experiences VII
- Pharmacy 7011-7019 Advance Pharmacy Practice Experiences VII
- Pharmacy 7011-7019 Advance Pharmacy Practice Experiences IX
 - Advanced pharmacy practice experience rotations including ambulatory, community, institutional and elective settings. Students may receive Honors Level Performance distinction and have a textual note added to their official University transcript.

ELECTIVE REQUIREMENTS

A minimum of 6 hours of program electives must be completed prior to graduation. Elective coursework is to be taken while enrolled in the Doctor of Pharmacy program. Courses taken prior to matriculation into the Doctor of Pharmacy program cannot be counted. Please see the "Professional Electives" document detailing a list of approved courses.

SUMMARY OF ENTRY LEVEL DOCTOR OF PHARMACY CURRICULUM

A summary of the required courses outlined above is included on the next page.

Summary of Curriculum

Year 1

Autumn

Pharmacy 6001	1 hr
Pharmacy 6010	2 hrs
Pharmacy 6050	4 hrs
Pharmacy 6080	3 hrs
Pharmacy 6210	3 hrs
Pharmacy 6610	3 hrs

Spring

Pharmacy 6002	1 hrs
Pharmacy 6020	2 hrs
Pharmacy 6060	4 hrs
Pharmacy 6090	3 hrs
Pharmacy 6220	3 hrs
Pharmacy 6240	0.5 hrs
Pharmacy 6260	1 hr
Pharmacy 6620	3 hrs

Year 2

Autumn

Pharmacy 7003	1 hr
Pharmacy 7110	2 hrs
Pharmacy 7310	3 hrs
Pharmacy 7470	8 hrs
Pharmacy 7740	3 hrs

Spring

Pharmacy 7004	1 hr
Pharmacy 7320	3 hrs
Pharmacy 7480	7 hrs
Pharmacy 7750	3 hrs

Year 3

Autumn

Pharmacy 7005	1 hr
Pharmacy 7240	2 hrs
Pharmacy 7490	7 hrs
Pharmacy 7630	3 hrs

Spring

Pharmacy 7006	1 hr
Pharmacy 7007	2 hr
Pharmacy 7500	8 hrs
Pharmacy 7860	4 hrs
Pharmacy 7900	2 hrs

Year 4

Summer

Pharmacy 7011	3 hrs
Pharmacy 7012	
Pharmacy 7013	3 hrs
Pharmacy 7008	0.5 hrs

Spring

Pharmacy 7017	3 hrs
Pharmacy 7018	3 hrs
Pharmacy 7019	3 hrs
Pharmacy 7008	0.5 hrs

Autumn

Pharmacy 7014	3 hrs
Pharmacy 7015	3 hrs
Pharmacy 7016	3 hrs
Pharmacy 7008	0.5 hrs