

## Graduation Requirements (Class 2026)

# Doctor of Pharmacy (PharmD)

Students in the PharmD program are required to complete a minimum of 149 units over the course of four years of study. The coursework is comprised of required courses, elective courses, and a capstone. Included in the required 149 total units, students must complete 8 clinical rotations consisting of 2 Introductory Pharmacy Practice Experiences (IPPE), for a minimum of 300 hours, and 6 Advanced Pharmacy Practice Experiences (APPE), for a minimum of 1,440 hours.

### Program Requirements

1st Year Fall Core Courses	Units
<b>PHAR 5310</b> Pharmaceutics and Biopharmaceutics	3.0
<b>PHAR 5311</b> Pharmaceutical Calculations	2.0
<b>PHAR 5315</b> Principles of Drug Action	4.5
<b>PHAR 5325</b> Integrated Series 1 – Introduction to Pharmacy Practice	5.0
<b>PHAR 5332</b> Biostatistics	2.5
<b>PHAR 5350</b> Professional Development Series 1	1.0
<b>PHAR 5360</b> Recitation 1	1.0
<b>Subtotal</b>	<b>19.0</b>

1st Year Spring Core Courses	Units
<b>PHAR 5318</b> Pharmacokinetics	3.0
<b>PHAR 5321</b> Pharmacy Law and Ethics	2.0
<b>PHAR 5335</b> Integrated Series 2 – Endocrinology and Urology	5.0
<b>PHAR 5342</b> Drug Information, Study Design, and Literature Evaluation	2.0
<b>PHAR 5351</b> Professional Development Series 2	1.0
<b>PHAR 5365</b> Recitation 2	1.0
<b>PHAR 5370</b> Introduction to Industry	2.0
<b>PHAR 5375</b> Pre-IPPE Readiness and Patient Assessment	3.0
<b>Subtotal</b>	<b>19.0</b>

### Program Requirements

2nd Year Fall Core Courses	Units
<b>PHAR 6420</b> Pharmacy Management	2.0
<b>PHAR 6425</b> Integrated Series 3 – Cardiology	6.5
<b>PHAR 6430</b> Introduction to Pharmacy Informatics	2.0
<b>PHAR 6435</b> Integrated Series 4 – Nephrology	3.0
<b>PHAR 6450</b> Professional Development Series 3	1.0
<b>PHAR 6460</b> Recitation 3	1.0
<b>PHAR 6471</b> IPPE 1 – Community Pharmacy Practice	4.5
<b>Subtotal</b>	<b>20</b>

### Program Requirements

3rd Year Fall Core Courses	Units
<b>PHAR 7515</b> Integrated Series 7 – Neurology and Psychiatry	7.0
<b>PHAR 7525</b> Integrated Series 8 – Gastroenterology	4.0
<b>PHAR 7552</b> Pre-APPE Readiness 1	2.0
<b>PHAR 7560</b> Recitation 5	1.0
<b>PHAR 7571</b> IPPE 3 – Health Systems Pharmacy Practice	3.0
<b>Didactic Certificate Courses</b>	4.5-6.0
<b>Subtotal</b>	<b>20.5-22</b>

2nd Year Spring Core Courses	Units
<b>PHAR 6411</b> Sterile Products	1.0
<b>PHAR 6421</b> Pharmacoeconomics and Pharmacovigilance	2.0
<b>PHAR 6428</b> Health Care Delivery	2.0
<b>PHAR 6445</b> Integrated Series 5 – Immunology, Rheumatology, and Dermatology	4.0
<b>PHAR 6455</b> Integrated Series 6 – Infectious Disease	7.0
<b>PHAR 6451</b> Professional Development Series 4	1.0
<b>PHAR 6465</b> Recitation 4	1.0
<b>Subtotal</b>	<b>18</b>

3rd Year Spring Core Courses	Units
<b>PHAR 7536</b> Integrated Series 9 – Hematology, Oncology, Pulmonology and Ophthalmology	5.0
<b>PHAR 7553</b> Pre-APPE Readiness 2	2.0
<b>PHAR 7565</b> Recitation 6	1.0
<b>Didactic Certificate Electives</b>	4.5- 6.0
<b>Subtotal</b>	<b>12.5-14</b>

4th Year Fall Core Courses	Units
<b>PHAR 8600</b> Advanced Community Practice APPE	6.0
<b>PHAR 8601</b> Advanced Health-System Practice APPE	6.0
<b>PHAR 8602</b> Ambulatory Care APPE	6.0
<b>PHAR 8603</b> General Medicine APPE	6.0
<b>Subtotal</b>	<b>24.0</b>

4th Year Spring Core Courses	Units
<b>PHAR 8611, 8620-8631, 8650-8656, 8672-8676</b> Elective APPE	12.0
<b>PHAR 8640</b> Pharmacy Capstone Seminar	1.5
<b>Subtotal</b>	<b>13.5</b>

**Courses that are designated as experiential will take place in a variety of pharmacy practice settings. These are categorized as either:**

- Introductory Pharmacy Practice Education (IPPE)
- Advanced Pharmacy Practice Education (APPE)

#### **IPPE rotations**

- Includes two rotations that will take place during the second (P2) and third (P3) year.
- The IPPE rotations will provide the students with a total of 300 hours. More than 50% of the IPPE hours are in community and institutional sites.

#### **APPE rotations**

- APPE rotations take place during the fourth (P4) year.
- In total, six APPE rotations are required in the program and will take place during the fourth professional (P4) year.
- These will provide the students with a total of 1,440 hours of practice experience during the PharmD program (40 hours/week for 6 weeks for 6 rotations).
- The majority of the APPE curriculum (at least 820 hours) must be focused on patient care, but some APPEs will permit students to engage in elective non-patient care experiences (e.g., industry rotations).

## PharmD Certificates

PharmD graduates will earn a certificate in one of the following three options: Healthcare Management/Pharmacy Informatics (HCM/PI), Medical and Clinical Affairs (MCA), or Medication Therapy Outcomes (MTO). Below are the required core and elective courses to successfully complete each certificate. In addition to the 9.0 credit hours required for each certificate, HCM/PI and MCA students must complete an additional MTO course (1.5 credit hours). In addition to the didactic electives, students will take at least one APPE elective rotation totaling 6 credits.

### Healthcare Management/Pharmacy Informatics (HCM/PI)

The HCM certificate program offers management training, healthcare technology, and experience in dynamic healthcare settings. The curriculum emphasizes analytical and problem-solving skills in conjunction with a deep understanding of the healthcare environment. In addition to the core and certificate elective courses, students are required to take one MTO elective course (1.5 units).

Healthcare Management/Pharmacy Informatics (HCM/PI)	Units
PHAR 7513 Healthcare Finance and Reimbursement	1.5
PHAR 7546 Healthcare Delivery Science & Medication Safety	1.5
PHAR 7542 Applying Technology to the Medication Use Process	3.0
Certificate Elective Course(s)	3.0
MTO Elective Course	1.5
<b>Total</b>	<b>10.5</b>

Preferred electives totaling 3 units include: BUS 5000; BUS 5200; BUS 6400; MATH 5200; PHAR 7563; and, other courses upon the recommendation of the certificate coordinator.

### Medical and Clinical Affairs (MCA)

The MCA certificate program will provide student pharmacists with the skills needed to provide strategic, tactical, and operational direction within regulations to expedite the development and delivery of safe and effective healthcare products. In addition to the core courses, MCA students are required to take one MTO elective course (1.5 units).

Medical and Clinical Affairs	Units
<b>BUS 5000</b> Introduction to the Biosciences Industries (ALS 359)	3.0
<b>REG 6510</b> Design of Clinical Trials, Conduct, and Strategy (ALS 433)	1.5
<b>PHAR 7563</b> Fundamentals of Medical Affairs	1.5
<b>Team Masters Project</b>	3.0
<b>MTO Elective Course</b>	1.5
<b>Subtotal</b>	<b>10.5</b>

### Medication Therapy Outcomes (MTO)

The MTO certificate program provides opportunities to develop skills to provide care for patients in rural settings, from underserved populations, in accountable care organizations, and throughout the continuum of care process. Students selecting the MTO certificate are required to complete 7.5 credit hours from the list below in addition to the certificate elective course(s).

Medication Therapy Outcomes (MTO)	Units
<b>PHAR 7581</b> Advanced Topics in Drug Interactions	1.5
<b>PHAR 7582</b> Critical Care	1.5
<b>PHAR 7587</b> Nutrition Support	1.5
<b>PHAR 7588</b> Geriatric Patient Care	1.5
<b>PHAR 7593</b> Cardiology	1.5
<b>Certificate Elective Course(s)</b>	3.0
<b>Subtotal</b>	<b>10.5</b>

Preferred electives totaling 3 units include: any HCM/PI or MCA certificate core course; GENE 5040; GENE 5290; and, other courses upon the recommendation of the certificate coordinator.