

## Doctor of Pharmacy (Pharm.D.) Curriculum<sup>ab</sup>

### Class of 2028

First Professional Year – Fall 2024		Total Credits: 18
<b>PHPS 700</b>	<b>Principles of Drug Action I</b> Discussion of chemical and physical properties relating to drug action. Emphasis on absorption, distribution, metabolism, and elimination of drugs, receptors theory, and mechanisms of action.	<b>4.0</b>
<b>PHPS 702</b>	<b>Biochemical Principles for Pharmacy</b> Addresses chemical and molecular biology basis for drug action and human diseases. Biochemical pathways, enzyme structure and regulation, metabolism of nutrients and food constituents covered.	<b>3.0</b>
<b>PHPS 704</b>	<b>Biopharmaceutics and Drug Delivery I</b> Addresses drug absorption process, Fickian mass transport concepts and mathematical models. Common dosage forms and delivery systems are also presented.	<b>2.0</b>
<b>PHAS 708</b>	<b>Health Care Systems</b> Examines the financing, and delivery of the U.S. healthcare system, introduces the concepts of health outcomes, population-based care, and social/economic factors that impact patient care.	<b>3.0</b>
<b>PHPR 711</b>	<b>Drug Information</b> Focuses on drug information resources and medication safety. Emphasis is on developing abilities to retrieve literature and utilize resources for pharmacy practice.	<b>1.0</b>
<b>PHAS 716</b>	<b>Ethical Issues in Health Care</b> The course is structured as an interprofessional course where pharmacy students will collaborate with dental students to discuss ethical issues encountered in health care.	<b>1.0</b>
<b>PHPR 717</b>	<b>Patient-Centered Communication</b> Focuses on the development of patient and provider communication skills within health care settings.	<b>1.0</b>
<b>PHPR 718A</b>	<b>Pharmacy Skills Lab I</b> Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.	<b>1.0</b>
<b>PHEP 719A</b>	<b>Personal and Professional Development I</b> One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.	<b>2.0</b>

<sup>a</sup> Subject to change per recommendations by Curriculum Committee

<sup>b</sup> The normal academic load is indicated for each semester. Students may be permitted to take more than these credits with approval of the Office of Academic Affairs and the Pharmacy Advisor.

**First Professional Year – Spring 2025**

**Total Credits: 17**

<b>PHPS 701</b>	<b>Principles of Drug Action II</b> Addresses toxicology and mechanisms of drug actions in endocrine and cardiovascular systems. Emphasis is placed on anatomy and physiology, disease states, and drug actions.	<b>2.0</b>
<b>PHPS 705N</b>	<b>Biopharmaceutics and Drug Delivery II</b> Addresses drug product preformulation, formulation, and manufacture including influence on patient product performance. Physicochemical factors relevant to drug administration, problem solving, and patient counseling emphasized.	<b>3.0</b>
<b>PHPS 707N</b>	<b>Pharmacy Calculations</b> Addresses the mathematical skills necessary for pharmacy practice.	<b>1.0</b>
<b>PHPR 710</b>	<b>Biomedical Literature Evaluation</b> Addresses process of critically reviewing biomedical and pharmaceutical literature by analyzing statistics and research design. Principles of outcomes research covered. Prerequisite: open to pharmacy students only or by consent of department chair.	<b>3.0</b>
<b>PHPS 712</b>	<b>Immunology and Immunization Training</b> A study of principles of immunology, host responses to microbial infections/tumors, allergic reactions, autoimmune diseases, transplantations and appropriate vaccination strategies to improve public health.	<b>3.0</b>
<b>PHPR 713N</b>	<b>Self Care &amp; Alternative Medicines</b> Study of nonprescription medicines and dietary supplements used for self-care. Emphasis will be placed on selection of the appropriate nonprescription medication and patient counseling.	<b>3.0</b>
<b>PHPR 718B</b>	<b>Pharmacy Skills Lab II</b> Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.	<b>1.0</b>
<b>PHEP 719B</b>	<b>Personal and Professional Development II</b> One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.	<b>1.0</b>

Second Professional Year – Fall 2025		Total Credits: 19
<b>PHPS 720N</b>	<b>Pharmacokinetics</b> Addresses mathematical and clinical basis for understanding drug absorption, distribution, metabolism, and elimination. The mathematical modeling for determining patients' drug dosage regimen is covered.	<b>3.0</b>
<b>PHAS 728N</b>	<b>Pharmacy Management I</b> Addresses pharmacy communication theory, the management of human resources and leadership principles that are useful in maximizing pharmacy operations.	<b>2.0</b>
<b>PHPT 730A</b>	<b>Integrated Pharmacotherapeutics I</b> Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.	<b>4.0</b>
<b>PHPT 730B</b>	<b>Integrated Pharmacotherapeutics II</b> Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.	<b>4.0</b>
<b>PHPR 735N</b>	<b>Physical Assessment and Patient Care Skills</b> Develops physical assessment, laboratory test interpretation and patient care skills for drug therapy and disease state management.	<b>2.0</b>
<b>PHPR 738A</b>	<b>Pharmacy Skills Lab III</b> Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.	<b>1.0</b>
<b>PHEP 739A</b>	<b>Personal and Professional Development III</b> One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.	<b>3.0</b>

Second Professional Year – <b>Spring 2026</b>		Total Credits: 18
<b>PHPS 703</b>	<b>Principles of Pharmacogenomics</b> Addresses techniques of molecular biology and pharmacogenomic principles applied to human disease states. Emphasized pathological states where therapeutic drug intervention exists or might be developed.	<b>2.0</b>
<b>PHAS 709</b>	<b>Health Care and Financial Management</b> Addresses principles of business, marketing, strategic planning, and financial management. The economic and political environment of the American health care system. Prerequisite: open to pharmacy students only or by consent of department chair.	<b>2.0</b>
<b>PHPT 730C</b>	<b>Integrated Pharmacotherapeutics III</b> Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.	<b>4.0</b>
<b>PHPT 730D</b>	<b>Integrated Pharmacotherapeutics IV</b> Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.	<b>4.0</b>
<b>PHPR 738B</b>	<b>Pharmacy Skills Lab IV</b> Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.	<b>1.0</b>
<b>PHEP 739B</b>	<b>Personal and Professional Development IV</b> One of a six-course sequence where students gain personal and professional skills and participate in experimental learning necessary in their development as well-rounded healthcare professionals.	<b>3.0</b>
<b>PHPR 744</b>	<b>Health Promotion &amp; Literacy</b> Prepare to provide care to a diversity of individuals by understanding and respecting differences including attention to health literacy concerns.	<b>2.0</b>

Third Professional Year – Fall 2026		Total Credits: 19c
<b>PHAS 733N</b>	<b>Pharmacy Law</b> Covers legal requirements in pharmacy practice and helps students apply laws to circumstances they may encounter in various practice settings.	<b>2.0</b>
<b>PHPT 750A</b>	<b>Integrated Pharmacotherapeutics V</b> Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.	<b>4.0</b>
<b>PHPT 750B</b>	<b>Integrated Pharmacotherapeutics VI</b> Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.	<b>4.0</b>
<b>PHAS 756</b>	<b>Pharmacy &amp; Population Health</b> Introduces the concepts of population health, determinants and patterns of population health problems and identifying possible ways to improve population health.	<b>2.0</b>
<b>PHPR 758A</b>	<b>Pharmacy Skills Lab V</b> Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.	<b>1.0</b>
<b>PHEP 759A</b>	<b>Personal and Professional Development V</b> One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.	<b>1.0</b>
	<b>Elective Courses</b>	<b>5.0<sup>c</sup></b>

<sup>c</sup> Total credits vary depending on number of elective credits taken. Students are required to accumulate a total of 10 elective credits for graduation. Students enrolled in a concurrent degree program should contact their advisor prior to enrolling in electives.

**Third Professional Year – Spring 2027**

**Total Credits: 18<sup>d</sup>**

<b>PHEP 751</b>	<b>Essentials of Research Application</b> Review of basic research principles (from idea creation to writing conclusion) in preparation for the Advanced Pharmacy Practice Experience (APPE) research application rotation.	<b>1.0</b>
<b>PHAS 754</b>	<b>Pharmacy Management II</b> Introduction to leadership and management activities and resource use in the community, institutional and other pharmacy practice settings. Developing problem-solving abilities will be emphasized.	<b>2.0</b>
<b>PHPT 750C</b>	<b>Integrated Pharmacotherapeutics VII</b> Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.	<b>4.0</b>
<b>PHPT 750D</b>	<b>Integrated Pharmacotherapeutics VIII</b> Integrates concepts of pathophysiology, pharmacology, medicinal chemistry and therapeutics. Students are expected to design, implement, monitor, evaluate, and adjust pharmaceutical care plans for patients.	<b>4.0</b>
<b>PHPR 758B</b>	<b>Pharmacy Skills Lab VI</b> Will focus on the development of pharmacy practice skills, utilizing the pharmacist patient care process model.	<b>1.0</b>
<b>PHEP 759B</b>	<b>Personal and Professional Development VI</b> One of six-course sequence where students gain personal and professional skills and participate in experiential learning necessary in their development as well-rounded healthcare professionals.	<b>1.0</b>
	<b>Elective Courses</b>	<b>5.0<sup>c</sup></b>

**Fourth Professional Year – Summer 2027, Fall 2027, Spring 2028 Total Credits: 45<sup>e</sup>**

<b>PHEP 780</b>	<b>Advanced Pharmacy Practice Experience: Community Pharmacy</b> To place students in a community pharmacy practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience.	<b>6.0</b>
<b>PHEP 781</b>	<b>Advanced Pharmacy Practice Experience: Hospital Pharmacy</b> To place students in a hospital practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience.	<b>6.0</b>
<b>PHEP 782</b>	<b>Advanced Pharmacy Practice Experience: Ambulatory Care</b> To place students in an ambulatory care practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience.	<b>6.0</b>
<b>PHEP 783</b>	<b>Advanced Pharmacy Practice Experience: Acute Care/General Medicine</b> To place students in an acute care setting where they can apply their didactic knowledge, develop core competencies, and gain patient care experience.	<b>6.0</b>
<b>PHEP 784</b>	<b>Advanced Pharmacy Practice Experience: Specialized Practice.<sup>d</sup></b> To place students in a specialized practice environment where they can apply their didactic knowledge, develop core competencies, and gain practical experience.	<b>6.0<sup>d</sup></b>
<b>PHEP 789</b>	<b>Advanced Pharmacy Practice Experience: ImPaCT (Improving Patient Care for Tomorrow)</b> The ImPaCT experience requires the student to develop and complete a scholarly pharmacy related project.	<b>3.0</b>

**Doctor of Pharmacy Curriculum**

**Total Credits: 154**

<sup>d</sup> Must repeat PHEP 784 to accumulate 18 credit hours.