

PHILADELPHIA COLLEGE OF PHARMACY DEAN'S OFFICE

The Philadelphia College of Pharmacy (PCP) at Saint Joseph's University's Bachelor of Science in Pharmaceutical and Healthcare Studies to Doctor of Pharmacy (PharmD) is a six-year program with a unique, competency-driven professional curriculum that prepares undergraduate and transfer students to emerge as leaders in the pharmacy profession. You'll enjoy a robust mix of classroom and lab learning experiences, along with experiential learning opportunities that expose you to different practice environments.

This program features a two-phase education for undergraduate students interested in early admission to PCP's accredited PharmD program – no PCAT or GRE required. You can enter this program as an incoming first-year student through our direct-entry admission pathway, earning a BS and PharmD degrees in as little as six years after graduation from high school. You may also enter the pre-professional phase (Year 1 or 2) or professional phase (Year 3) of the six-year BS/PharmD program as a transfer student depending on the prerequisites you've completed.

Housed in Saint Joseph's University's historic Philadelphia College of Pharmacy, North America's first pharmacy school, the top-ranking Doctor of Pharmacy (PharmD) program prepares students for successful careers in pharmacy. Our four-year PharmD degree features a competency-driven professional curriculum that mirrors the complex realities of modern practice. This includes a unique experiential learning component that offers the opportunity to work alongside pharmacists in real-world practice settings starting the first month of your first year.

Learning Goals and Outcomes

PCP is dedicated to students' acquisition and integration of the requisite knowledge, skills, values and attitudes that enable them to become educated and responsible citizens, competent healthcare, and scientific professionals, life-long learners, and leaders. Its educational philosophy is learner-centered and developmental, building knowledge, skills, and self-confidence in an incremental manner, with a focus on "learning and knowing by doing." The objectives of this approach are accomplished by the use of active learning techniques within the classroom, the development of analytical and problem-solving skills through individualized and integrated application exercises, as well as extensive practice and research experiences that allow the application of learned knowledge in and out of the classroom. Students are also engaged via co-curricular activities, including college and professional organizations, and interactions in a formalized faculty and peer mentor program.

Pathways

You can enter this PharmD program in the following ways:

Direct-entry/6-Year PharmD: Enter as a first-year student to earn a BS in pharmaceutical and healthcare studies and a PharmD in just six years.

Transfer: Enter the pre-professional phase (Year 1 or 2) of the six-year BS/PharmD program or the professional phase (Year 3), depending on the prerequisites you've completed.

Post-graduate student: Enter the professional phase of the program if you have a bachelor's degree and have completed all admission

requirements. – no PCAT or GRE required. We also offer pathways for students who do not hold a bachelor's degree.

Direct Entry students will transition seamlessly to the professional phase of the program and start their four years of fully integrated, competency-driven coursework by meeting all progression requirements. The curriculum builds on foundational knowledge and skills, encouraging proficiency in a range of subjects, from human disease and pharmacology to pharmaceuticals, therapeutics and pharmacoconomics. You'll also gain hands-on experience through our more than 400 clinical affiliation partner sites across the country – including some of the most renowned hospitals, medical centers, pharmaceutical companies and regulatory agencies. Transfer students may also enter the program at this phase if they've completed all required prerequisites.

Requirements PCP Program Entry and Technical Standards

The most common route for entry into either the Doctor of Pharmacy program or one of the BS programs is directly from high school. Admission evaluations are handled by the University Admissions Department in consultation with program directors and, for the PharmD program, the Assistant Dean for PCP Student Affairs and Admissions. The University Admissions Department also handles admissions of transfer students into the first undergraduate year, the second undergraduate year, or first professional year of the PharmD program, as well as into all years of the BS programs. Students who are accepted into the PharmD program must affirm that they have reviewed and agree that they are capable of meeting the College of Pharmacy's technical standards with or without accommodations. The most current technical standards can be found on the University web page (<https://www.sju.edu/departments/philadelphia-college-pharmacy/about/#technical-standardscollege-of-pharmacy/pharmacy-pharmd/technical-standardshtml>). Technical standards are reviewed and re-affirmed each academic year. Prior to matriculation into the PharmD program, students from all entry pathways must complete a PharmCAS application.

Residency Requirements

Direct-entry PharmD students have up to 8 semesters to complete pre-professional coursework (excluding summer sessions or intersessions).

Students admitted into the first professional year (P1) of the Doctor of Pharmacy Program must be enrolled for at least four years (i.e., 8 semesters of at least 12 credits/semester) in residency at PCP, regardless of the extent or nature of previous academic experience. Such students entering into P1 will receive transfer credit for those basic sciences and general education courses that are considered equivalent in content and semester credit to similar courses included in the pharmacy curriculum as long as they receive a grade of "C" or better.

To earn an undergraduate degree from PCP, per the SJU Catalog, a student must successfully complete at least 60 credits of eligible coursework offered by the University, with the final 30 credits of the degree completed at SJU. Eligible coursework results in a letter grade that contributes to a student's calculated grade point average (GPA). Catalog year for transfer students will be backdated to the Catalog Year when they would have started attending the University as a first-year student.

The maximum amount of time to complete all requirements to earn a BS degree in PCP is six years from entry as a freshman to Saint Joseph's

University. If residency exceeds 6 years to earn a BS degree in PCP, then a student's educational plan may be adjusted to reflect current University educational requirements. For the PharmD program, students have a maximum of six years from entry into the first professional year (P1) of the program to complete all degree requirements. The inability to complete all degree requirements in the allotted time frame will result in the student being withdrawn from the program. Approved leaves of absence are not counted as part of the maximum time to degree.

Pharmacy Student to Student Pharmacist transition: pre-professional to professional phase

For direct entry PharmD students, automatic progression from undergraduate status into P1 (first professional year) occurs when the following criteria are met:

1. Completion of all required pre-professional and undergraduate coursework resulting in a minimum cumulative GPA of 2.70 and a minimum natural science/math GPA of 2.50. These GPA requirements must be met by the end of the spring semester prior to the fall semester in which the student expects to matriculate.
2. Successful completion of the Professional Education Readiness Competency (PERC) interview.
3. Completed PharmCAS application.

Students who do not meet these criteria will be withdrawn from the program; if their cumulative GPA is above 2.50 at the end of the spring semester prior to the fall in which the student expects to matriculate, these students will be reviewed for readmission into the program by the PCP Admissions Committee.

PERC Interview

The PERC interview is a standardized, behavioral-based interview to assess students' readiness for professional education, and is mandated for compliance with accreditation standards. It is separate and distinct from the academic standards for automatic progression into the professional component of the Doctor of Pharmacy program. The standardized interview is a confidential, thirty-minute "conversation with a purpose", between the student and two PCP faculty/professional staff members. Candidates are required to complete a confidentiality agreement. If the student is unsuccessful in their first attempt, a success plan with suggested readings and activities to improve the student's knowledge base, confidence, and ability to communicate their perspectives will be provided to the student. A second and final opportunity to successfully complete the PERC interview will be provided in the spring semester. If, after two opportunities, the student does not successfully complete the PERC interview, the student will be withdrawn from the PharmD program even if the other criteria for progression into the professional years are met. If such an event should occur, the student may opt to apply for a change of major to other PCP or University programs. Further information about the PERC interview process is communicated to students through class meetings and through the PCP Dean's Office.

Students who are withdrawn from the PharmD program may apply to other programs at the University.

Undergraduate Curriculum Plan

The traditional undergraduate programs includes a minimum of 120 credits distributed across three components: A General Education component divided into Signature Courses, Variable Courses, and an Integrative Learning requirement; a Major and Divisional component; and Free Electives. In addition to course requirements as specified in each area, students must complete one certified course in each of the following overlay areas¹:

1. Diversity, Globalization or Non-western Area Studies,
2. Ethics Intensive
3. Writing Intensive, and
4. Diversity

1

Overlay requirements are part of the 120 credit requirements

General Education Signature Courses

See this page about Signature courses (<https://academiccatalog.sju.edu/curricula/#signature>).

General Education Variable Courses

See this page about Variable courses (<https://academiccatalog.sju.edu/curricula/#variable>). Six to Nine courses

General Education Overlays

See this page about Overlays (<https://academiccatalog.sju.edu/curricula/#overlay>).

General Education Integrative Learning Component

See this page about Integrative Learning Component (<https://academiccatalog.sju.edu/curricula/#integrative-learning>). Three courses:

Course	Title	Hours
First Year		
Fall		
BIO 101	Bio I: Cells	4
BIO 101L	Bio I: Cells Lab	0
CHM 120	General Chemistry I	3
CHM 120L	General Chemistry Lab I	1
ENG 101	Craft of Language	3
MAT 120	The Mathematics of Modeling (Student may test out of MAT 120)	3
INT 151	Inequality in American Society	1
First Year Seminar		3
Hours		18
Spring		
BIO 102	Bio II: Genetics	4
BIO 102L	Bio II: Genetics Lab	0
CHM 125	General Chemistry II	3
CHM 125L	General Chemistry Lab II	1
ENG 102	Texts & Contexts	3
MAT 155	Fundamentals of Calculus	3
PHL 154	Moral Foundations	3
Hours		17
Second Year		
Fall		
BIO 310	Anatomy and Physiology I	3
BIO 243	Microbial Science	3

BIO 243L	Microbial Science Lab	1
CHM 210	Organic Chemistry I	3
CHM 210L	Organic Chemistry Lab I	1
ECN 101	Introductory Economics Micro	3
THE 153 or THE 154 or THE 155	Encountering the New Testament or Catholic Theological Tradition or Catholic Social Tradition	3
Hours		17
Spring		
BIO 311	Anatomy and Physiology II	3
CHM 215	Organic Chemistry II	3
CHM 215L	Organic Chemistry Lab II	1
PHY 101	General Physics I	3
PHY 101L	General Physics Laboratory I	1
MAT 128	Applied Statistics	3
HIS 154	Forging the Modern World	3
Hours		17
Third Year		
Fall		
PRX 301	Extrinsic Summative AR I	0
PRX 302	Professional Orientation	2
PRX 316	Practice Skills/Prof Behavior1	4
PRX 330	Foundations of Biomedical Sci	4
PRX 340	Foundations of Pharm Sci 1	3
PRX 350	iPSDT 1:DiseasePrev & SelfCare	3
PRX 380	IPPE-1: Service Learning 1	1
Hours		17
Spring		
PRX 301	Extrinsic Summative AR I	1
PRX 325	Medication Use Systems 1	3
PRX 305	Foundations of Clinical Immuno	3
PRX 345	Foundations of Pharm Sci 2	3
PRX 355	iPSDT 2: Cardiovascular 1	3
PRX 365	iPSDT 3: Pulmonary	3
PRX 390	IPPE-2: Service Learning 2	1
Faith and Reason Course	Must be completed prior to P2 year	3
Hours		20
Fourth Year		
Fall		
PRX 401	Extrinsic Summative AR 2	0
PRX 420	Practice Skills/Prof Behavior2	3
PRX 425	Medication Use Systems 2	3
PRX 430	Health Info Retrieval & Eval	3
PRX 415	Fndtns Healthcare Policy/Law (Ethics Intensive)	3
PRX 452	iPSDT 4: Cardiovascular 2	3
PRX 480 or PRX 490	IPPE 3: Adv Comm/Ambul Care or IPPE 4: Institutional Pharmacy	1
Hours		16
Spring		
PRX 401	Extrinsic Summative AR 2	1
PRX 440	Foundations of Pharm Sci 3	3
PRX 435	Lit Eval & Evidence-Based Med (Writing Intensive)	3
PRX 454	iPSDT 5: Renal/Hepatic	3
PRX 455	iPSDT 6: Endocrine/Reproductiv	3
PRX 457	iPSDT 7: Infectious Disease 1	3
Hours		16
Total Hours		138

a competency-driven professional curriculum that mirrors the complex realities of modern practice. This includes a unique experiential learning component (<https://www.sju.edu/departments/pharmacy-practice/experiential-learning/>) that offers the opportunity to work alongside pharmacists in real-world practice settings starting the first month of your first year.

Course	Title	Hours
First Year		
Fall		
PRX 301	Extrinsic Summative AR I	0
PRX 302	Professional Orientation	2
PRX 316	Practice Skills/Prof Behavior1	4
PRX 330	Foundations of Biomedical Sci	4
PRX 340	Foundations of Pharm Sci 1	3
PRX 350	iPSDT 1:DiseasePrev & SelfCare	3
PRX 380	IPPE-1: Service Learning 1	1
Hours		17
Spring		
PRX 301	Extrinsic Summative AR I	1
PRX 325	Medication Use Systems 1	3
PRX 305	Foundations of Clinical Immuno	3
PRX 345	Foundations of Pharm Sci 2	3
PRX 355	iPSDT 2: Cardiovascular 1	3
PRX 365	iPSDT 3: Pulmonary	3
PRX 390	IPPE-2: Service Learning 2	1
Hours		17
Second Year		
Fall		
PRX 401	Extrinsic Summative AR 2	0
PRX 420	Practice Skills/Prof Behavior2	3
PRX 425	Medication Use Systems 2	3
PRX 415	Fndtns Healthcare Policy/Law	3
PRX 430	Health Info Retrieval & Eval	3
PRX 452	iPSDT 4: Cardiovascular 2	3
PRX 480 or PRX 490	IPPE 3: Adv Comm/Ambul Care or IPPE 4: Institutional Pharmacy	1
Professional Elective		0-3
Hours		16-19
Spring		
PRX 401	Extrinsic Summative AR 2	1
PRX 440	Foundations of Pharm Sci 3	3
PRX 435	Lit Eval & Evidence-Based Med	3
PRX 454	iPSDT 5: Renal/Hepatic	3
PRX 455	iPSDT 6: Endocrine/Reproductiv	3
PRX 457	iPSDT 7: Infectious Disease 1	3
PRX 490 or PRX 480	IPPE 4: Institutional Pharmacy or IPPE 3: Adv Comm/Ambul Care	1
Professional Elective		0-3
Hours		17-20
Third Year		
Fall		
PRX 501	Extrinsic Summative AR 3	0
PRX 510	Applied Prof Behavior & Comm	2
PRX 520	Entrepreneurship	1
PRX 530	iPSDT 8: Infectious Disease 2	3
PRX 534	iPSDT 9: Central Nervous Sys 1	3
PRX 538	iPSDT 10: Central Nervous Sys2	3
PRX 570	Integrated Practice 1	3
PRX 580 or PRX 590	IPPE 5:Adv Institutional Pharm or IPPE 6: Patient Care Elective	1

PharmD Curriculum Plan

Doctor of Pharmacy (PharmD) program prepares students for successful careers in pharmacy. Our four-year PharmD degree features

Professional Elective	Hours	0-3
		16-19
Spring		
PRX 501	Extrinsic Summative AR 3	1
PRX 543	iPSDT 11: GI/Nutrition	3
PRX 545	iPSDT 12: Imm/Musculoskel/Skin	3
PRX 553	iPSDT 13: Hematology/Oncology	3
PRX 555	iPSDT 14: Infectious Disease 3	3
PRX 575	Integrated Practice 2	3
PRX 590 or PRX 580	IPPE 6: Patient Care Elective or IPPE 5: Adv Institutional Pharm	1
Professional Elective		0-3
Six (6) Professional Elective credits required by end of P3 year. Check the following link for all approved professional electives: https://docs.google.com/spreadsheets/d/1Rr5stoGAEW2f9MYHnTrUj-FKaVHvJOxG/edit#gid=975538575 (https://docs.google.com/spreadsheets/d/1Rr5stoGAEW2f9MYHnTrUj-FKaVHvJOxG/edit/#gid=975538575)		
	Hours	17-20
Fourth Year		
PRX 610	APPE: Community Pharmacy	5
PRX 618	Pharm Prof Dev & Enrichment	1
PRX 620	APPE: Ambulatory Care Pharm	5
PRX 630	APPE: Institutional Pharmacy	5
PRX 640	APPE: Acute Patient Care	5
PRX 650	APPE: Indir Patient Care Elec	5
PRX 660	APPE: Patient Care Elective	5
PRX 670 or PRX 680	APPE: Academic Elective or APPE Research Elective	5
	Hours	36
	Total Hours	136-148

Courses

PRX 301 Extrinsic Summative AR I (1 credit)

Extrinsic Summative Assessment and Reassessments (ESAR) are authentic assessments which provide relevance and purpose to learning. Activities and assessments are designed to reveal information to students about how well they retain, transfer, and apply knowledge and skills learned in the first professional year with the goal of competence in real world settings. Students are provided the opportunity for individualized learning support and reassessment if necessary.

PRX 302 Professional Orientation (2 credits)

This course module provides an introduction to the goals and expectations for student pharmacists entering the professional phase of the PharmD program. Health-related pre-requisites and anatomy/physiology knowledge will be assessed, and the personal and professional development expectations for success will be introduced, including emotional intelligence, team building, professional attire/attitudes/behaviors, relationship building, and professionalism.

PRX 305 Foundations of Clinical Immuno (3 credits)

This module provides a foundation in human immune system components as applied to vaccine design, immunotherapies and biologics. Discussion will emphasize combating infectious disease, cancer, autoimmunity, and allergic responses.

PRX 316 Practice Skills/Prof Behavior1 (4 credits)

This module introduces the skills necessary for patient engagement and interaction, emphasis is on the role of the pharmacist, Pharmacists' Patient Care Process, communication (verbal and written), professionalism and ethics.

PRX 325 Medication Use Systems 1 (3 credits)

This module provides an introduction to the principles and processes involved in medication acquisition/procurement, storage, prescribing/ordering, dispensing, including handling of controlled substances, utilization of medication safety information, documentation, health insurance payments systems and health informatics. The overall goal is for student pharmacist to demonstrate knowledge of these processes and to be able to process a non-complicated prescription for payment in both community and institutional pharmacy environments.

PRX 330 Foundations of Biomedical Sci (4 credits)

A foundation in the structure, properties, biological functions, bioenergetics, and metabolic fate of macromolecules essential to life (i.e. proteins, lipids, carbohydrates, and nucleic acids), the impact of molecular genetics on these processes; also, application of these concepts to human disease, drug therapy and rational drug design strategies.

PRX 340 Foundations of Pharm Sci 1 (3 credits)

This module provides an introduction to medicinal chemistry, pharmaceuticals, compounding and pharmaceutical calculations. Medicinal chemistry focuses on the in vitro and in vivo chemical basis of drug action including their physico-chemical properties, structure activity relationships and receptor binding and metabolism. Pharmaceuticals focuses on the principles and applications of dosage forms. Mathematical skills to accurately prepare prescriptions, including extemporaneously compounded dosage forms are included.

PRX 345 Foundations of Pharm Sci 2 (3 credits)

This module continues with an understanding of the principles and applications of physico-chemical properties of drugs for safe and effective drug delivery. Pharmacodynamics and basic pharmacokinetics with calculations are emphasized in order to provide a thorough understanding of the mechanisms (absorption, distribution, metabolism and elimination) involved in therapeutic and adverse drug actions. Selection of appropriate dosage forms that minimize adverse effects/toxicity are covered.

PRX 350 iPSDT 1:DiseasePrev & SelfCare (3 credits)

This module is the first of the 14 iPSDT modules which integrate the application of the pharmacy sciences, including medicinal chemistry, pharmacology, and pharmaceuticals specific disease states and therapeutic decision-making. This module focuses on the principles that underline disease pathogenesis and self-care pharmacotherapy.

PRX 355 iPSDT 2: Cardiovascular 1 (3 credits)

The Cardiovascular 1 module is first of two modules focused on the cardiovascular system. It focuses on the application of the pharmacy sciences, including medicinal chemistry, pharmacology and pharmaceuticals to cardiovascular diseases and therapeutic decision-making. The module encompasses the epidemiology, etiology, pathophysiology, prevention, pharmacologic and nonpharmacologic treatment and self-care of cardiovascular medical conditions. Included are complementary and alternative therapies.

PRX 365 iPSDT 3: Pulmonary (3 credits)

The Pulmonary module focuses on the application of the pharmacy sciences, including medicinal chemistry, pharmacology, and pharmaceuticals to pulmonary diseases and therapeutic decision-making. The module encompasses the etiology, pathophysiology, prevention, pharmacologic and nonpharmacologic treatment, and self-care of pulmonary medical conditions. Included are complementary and alternative therapies.

PRX 380 IPPE-1: Service Learning 1 (1 credit)

Introductory Pharmacy Practice Experiences (IPPEs) provides experiences that enhance and support didactic knowledge and skills. The focus of this course is a preceptor-directed experience in service learning and community pharmacy practice. Students will be assigned a service learning and community pharmacy site. Students will observe and be engaged in the following foundational components under preceptor supervision: medication use system, patient and healthcare practitioner communications, patient counseling, self-care triage, and patient care activities. Students will also be involved in professional pharmacy organizations, community service, and advocacy.

PRX 390 IPPE-2: Service Learning 2 (1 credit)

Introductory Pharmacy Practice Experiences (IPPEs) provides experiences that enhance and support didactic knowledge and skills. This course is a continuation of PRX380 and is a preceptor-directed experience in service learning and community pharmacy practice. Students will be assigned a service learning and community pharmacy site. Students will demonstrate competency in the following components under preceptor supervision: medication use system, patient and healthcare practitioner communications, patient counseling, self-care triage, and patient care activities. Students will also be involved in professional pharmacy organizations, community service, and advocacy.

PRX 401 Extrinsic Summative AR 2 (1 credit)

Extrinsic Summative Assessment and Reassessments (ESAR) are authentic assessments which provide relevance and purpose to learning. Activities and assessments are designed to reveal information to students about how well they retain, transfer, and apply knowledge and skills learned through the first and second professional years with the goal of competence in real world settings. Students are provided the opportunity for individualized learning support and reassessment if necessary.

PRX 415 Fndtns Healthcare Policy/Law (3 credits)

This module provides an introduction to the principles of pharmacy law and ethics, healthcare policies, medication payer functions, economic theories and their application to pharmacoeconomics, drug selection, and health coverage laws.

Attributes: Ethics Intensive, Undergraduate

PRX 420 Practice Skills/Prof Behavior2 (3 credits)

This module enhances the skills necessary for patient engagement and interactions. Emphasis is on the role of the pharmacist, Pharmacist's Patient Care Process, communication (verbal and written), and professionalism and ethics.

PRX 425 Medication Use Systems 2 (3 credits)

This modular course provides thorough coverage of medication acquisition/procurement, storage, prescribing/ordering, and dispensing processes in addition to applications of non-sterile and sterile compounding techniques, inventory control, adverse drug events, and hazardous waste handling and disposal processes. The overall goal is for student pharmacists to demonstrate appropriate utilization and documentation of medication procurement, distribution and dispensing in both community and institutional pharmacy environments.

PRX 430 Health Info Retrieval & Eval (3 credits)

This module provides the foundational knowledge and skills related to identifying types of literature and health information sources and determining the appropriateness of the source and the content for purposes of providing information to healthcare providers and a lay audience. An understanding of the hierarchy of health information sources and literature will allow the selection of appropriate sources and the development of written and verbal health information sources.

PRX 435 Lit Eval & Evidence-Based Med (3 credits)

This module builds upon the foundations established in RX430, and focuses on primary literature and its application to populations as well as to specific patient situations or questions. The main emphasis is the selection and comprehensive critical evaluation of clinical trials and the appropriate use of available results to develop recommendations for population-based scenarios or patient-specific scenarios. In addition, the literature will be utilized to develop professional oral presentations with written deliverables.

Prerequisites: ENG 101 or WR 101

Attributes: Undergraduate, Writing Intensive Course- GEP

PRX 440 Foundations of Pharm Sci 3 (3 credits)

This module further elaborates the application of physico-chemical properties of drugs to ensure safe, effective and targeted drug delivery. The impact of cutting edge biotechnology, pharmacogenetic/pharmacogenomic parameters, (and manufacturing, specialized compounding) to personalized medication delivery and minimize adverse effects/toxicity will be covered.

PRX 452 iPSDT 4: Cardiovascular 2 (3 credits)

The Cardiovascular 2 module is the second of two modules focused on the cardiovascular system. It focuses on the application of the pharmacy sciences, including medicinal chemistry, pharmacology and pharmaceuticals to cardiovascular diseases and therapeutic decision-making. The module encompasses the etiology, pathophysiology, prevention, pharmacologic and nonpharmacologic treatment, and self-care of medical conditions over the life cycle. Included are complementary and alternative therapies.

PRX 454 iPSDT 5: Renal/Hepatic (3 credits)

The renal/hepatic module of the iPSDT series focuses on the application of pharmacy sciences, including medicinal chemistry, pharmacology, and pharmaceuticals, to disease states and therapeutic decision-making in relation to renal and hepatic function. The module encompasses the etiology, pathophysiology, prevention, pharmacologic and nonpharmacologic treatment, and self care.

PRX 455 iPSDT 6: Endocrine/Reproductiv (3 credits)

The endocrine and reproductive systems module of the iPSDT series focuses on the application of the pharmacy sciences, including medicinal chemistry, pharmacology, and pharmaceuticals to disease states and therapeutic decision-making. This series encompasses the prevention and management of uncomplicated to complex medical conditions over the life cycle. Included are self-care pharmacotherapy, as well as natural products, dietary supplements, and alternative and complementary therapies. As part of this course, students will complete a training certificate program, such as American Pharmacists Association's The Pharmacist and Patient-Centered Diabetes Care Certificate.

PRX 457 iPSDT 7: Infectious Disease 1 (3 credits)

This is the first of three modules focusing on infectious diseases. The overarching objectives are to associate proper antibiotics (type and dosage) to bacterial infections and to identify main side effects and drug-drug interactions. This module will also allow the student to apply and integrate their knowledge by associating therapeutic dosages, side effects and resistance to antibiotics and mechanisms of actions at the pharmacological level.

PRX 480 IPPE 3: Adv Comm/Ambul Care (1 credit)

Introductory Pharmacy Practice Experiences (IPPEs) provides experiences that enhance and support didactic knowledge and skills. The focus of this course is a preceptor directed experience in advanced community pharmacy practice and ambulatory care. Students will observe and be engaged in the following components under an assigned community/ambulatory preceptor: operations, patient and healthcare practitioner communications, patient counseling, self-care triage, and patient care activities including medication therapy management and immunizations.

PRX 490 IPPE 4: Institutional Pharmacy (1 credit)

Introductory Pharmacy Practice Experiences (IPPEs) provides experiences that enhance and support didactic knowledge and skills. The focus of this course is directed student exposure to pharmacist practice roles in the institutional pharmacy practice setting. Students will observe and be engaged in the following components under the supervision of an assigned institutional pharmacist preceptor: the medication use system, operations, patient and/or healthcare practitioner communications.

PRX 501 Extrinsic Summative AR 3 (1 credit)

Extrinsic Summative Assessment and Reassessments (ESAR) are authentic assessments which provide relevance and purpose to learning. Activities and assessments are designed to reveal information to students about how well they retain, transfer, and apply knowledge and skills learned through the first, second, and third professional years with the goal of competence in real world settings. Students are provided the opportunity for individualized learning support and reassessment if necessary.

PRX 510 Applied Prof Behavior & Comm (2 credits)

This module focuses on complex communications with patients/caregivers and health care providers through both written and verbal skills using both formal and informal methods. Emphasis will be placed on professionalism, ethics, and leadership.

PRX 520 Entrepreneurship (1 credit)

This course is designed for student pharmacists to gain business acumen and pursue potential entrepreneurial endeavors. Additionally, this course will motivate student pharmacists to explore entrepreneurial opportunities and innovations in their profession.

PRX 530 iPSDT 8: Infectious Disease 2 (3 credits)

This is the second of three modules focusing on infectious diseases. The overarching objectives are to associate proper antimicrobial uses for various infections. Similar to module 1, this module will also focus on medication side effects and drug-drug interactions. Students will apply and integrate their knowledge by associating therapeutic dosages, side effects, pharmacokinetic and pharmacodynamic principles, and resistance to antimicrobial mechanisms of actions at the pharmacological level.

PRX 534 iPSDT 9: Central Nervous Sys 1 (3 credits)

This the first of two modules focused on the central nervous system. It emphasizes the application of the pharmacy sciences, including medicinal chemistry, pharmacology and pharmaceuticals to central nervous system diseases and therapeutic decision-making. The module encompasses the etiology, pathophysiology, prevention, pharmacologic and non-pharmacologic treatment, and self-care of medical conditions over the life cycle. Included are complementary and alternative therapies.

PRX 538 iPSDT 10: Central Nervous Sys2 (3 credits)

This module focuses on the epidemiology, pathophysiology, and clinical presentation of selected mood disorders, anxiety disorders, thought/psychotic disorders, neurodevelopment disorders, sleep-wake disorders, and substance-related/addictive disorders. The pharmacology and relevant pharmacokinetics, indications, dosage and administration, and adverse effects of the available drugs and drug classes used in the treatment of these disorders will also be addressed. Students will also design evidence-based treatment and monitoring plans based on current treatment guidelines and literature.

PRX 543 iPSDT 11: GI/Nutrition (3 credits)

The Gastrointestinal/Nutrition module of the iPDST series focuses on the application of pharmacy sciences, including medicinal chemistry, pharmacology, and pharmaceuticals, to disease states and therapeutic decision-making in relation to gastrointestinal and nutritional disorders. The module encompasses the etiology, pathophysiology, prevention, pharmacologic and non-pharmacologic treatment, and self care.

PRX 545 iPSDT 12: Imm/Musculoskel/Skin (3 credits)

The immune/musculoskeletal/skin module of the iPSDT series focuses on the application of pharmacy sciences, including medicinal chemistry, pharmacology, and pharmaceuticals, to disease states and therapeutic decision-making in relation to diseases involving the immune system, musculoskeletal system and the skin. The module encompasses the etiology, pathophysiology, prevention, pharmacologic and non-pharmacologic treatment, and self care.

PRX 553 iPSDT 13: Hematology/Oncology (3 credits)

This module focuses on the hematologic and oncologic processes with application of the pharmacy sciences, including medicinal chemistry, pharmacology and pharmaceuticals to specific diseases and therapeutic decision-making. The module encompasses the etiology, pathophysiology, prevention, pharmacologic and nonpharmacologic treatment, and self-care of medical conditions over the life cycle. Included are complementary, and alternative therapies as well as supportive care treatment options.

PRX 555 iPSDT 14: Infectious Disease 3 (3 credits)

This is the third of three modules focusing on infectious diseases. The overarching objectives are to associate proper antimicrobial use for various infections. Similar to modules 1 and 2, this module will also focus on medication side effects and drug-drug interactions. Students will apply and integrate their knowledge by associating therapeutic dosages, side effects, pharmacokinetic and pharmacodynamic principles, and resistance to antimicrobials to mechanisms of actions at the pharmacological level.

PRX 570 Integrated Practice 1 (3 credits)

This is the first of two modules designed to simulate real life patient scenarios with multiple disease states and patient care settings. This module will also focus on the various skills including, but not limited to, professionalism, communication, health information retrieval, physical assessment, calculation, application of pharmacy sciences, diseases and therapeutic knowledge, and intra- and inter-professional team dynamics. Additionally, various pharmacy practice management consideration, such as regulatory, public health, formulary management, and ethics will be integrated throughout the course activities. Students will serve as peer educators through a series of seminar presentations.

PRX 575 Integrated Practice 2 (3 credits)

This is the second of two modules designed to simulate real life patient scenarios with multiple disease states and patient care settings. This module will also focus on the various skills including, but not limited to, professionalism, communication, health information retrieval, physical assessment, calculation, application of pharmacy sciences, diseases and therapeutic knowledge, and intra- and interprofessional team dynamics. Additionally, various pharmacy practice management considerations, such as regulatory, public health, formulary management, and ethics will be integrated throughout the course activities. Students will serve as peer educators through a series of seminar presentations.

PRX 580 IPPE 5: Adv Institutional Pharm (1 credit)

Introductory Pharmacy Practice Experiences (IPPEs) provides experiences that enhance and support didactic knowledge and skills. The focus of this course is directed student exposure to patient care responsibilities of institutional pharmacists. Students will be assigned an institutional pharmacist preceptor and will observe and be engaged in the following components under their supervision: direct patient care, interprofessional collaboration, applying drug knowledge, the medication use system, patient and/or healthcare practitioner communications.

PRX 590 IPPE 6: Patient Care Elective (1 credit)

Introductory Pharmacy Practice Experiences (IPPEs) provides experiences that enhance and support didactic knowledge and skills. The focus of this course is directed student exposure to patient care responsibilities of institutional, community, or ambulatory care pharmacists. Students will be assigned a pharmacist preceptor and will observe and be engaged in the following components under their supervision: direct patient care, applying drug knowledge, the medication use system, and patient and/or healthcare practitioner communities.

PRX 595 IPPE Patient Care Elective 2 (1 credit)

Introductory Pharmacy Practice Experiences (IPPEs) provides experiences that enhance and support didactic knowledge and skills. The focus of this course is directed student exposure to patient care responsibilities of institutional, community, or ambulatory care pharmacists. Students will be assigned a pharmacist preceptor and will observe and be engaged in the following components under their supervision: direct patient care, applying drug knowledge, the medication use system, and patient and/or healthcare practitioner communities.
Restrictions: Enrollment is limited to students with a major in Pharmacy.

PRX 610 APPE: Community Pharmacy (5 credits)

Advanced Pharmacy Practice Experiences integrate, apply, reinforce, and advance the knowledge, skills, attitudes, abilities, and behaviors developed in the Pre-APPE curriculum and in co-curricular activities. During the APPE Community Pharmacy Rotation, student pharmacists are engaged in patient-focused provision of pharmacy services in a community pharmacy. Students will provide patient counseling, OTC triage, medication therapy management, etc. under pharmacist supervision as part of an integrated community pharmacy service model.

PRX 618 Pharm Prof Dev & Enrichment (1 credit)

This course is intended to enrich student development and achievement during their APPE year and prepare students to successfully transition from their professional education to practice.

PRX 620 APPE: Ambulatory Care Pharm (5 credits)

Advanced Pharmacy Practice Experiences integrate, apply, reinforce, and advance the knowledge, skills, attitudes, abilities, and behaviors developed in the Pre-APPE curriculum and in co-curricular activities. During the APPE Ambulatory Care Rotation, student pharmacists are engaged in provision of patient care and acute/chronic drug therapy management in an outpatient practice setting.

PRX 630 APPE: Institutional Pharmacy (5 credits)

Advanced Pharmacy Practice Experiences integrate, apply, reinforce, and advance the knowledge, skills, attitudes, abilities, and behaviors developed in the Pre-APPE curriculum and in co-curricular activities. During the APPE Institutional Rotation, student pharmacists gain experience in how medications are managed in the institutional setting and how institution-based pharmacists oversee the approximate and safe use of medications including oversight of medication ordering, dispensing and administration, use of technology and information, and the development and use of formularies, drug policies, procedures and protocols.

PRX 640 APPE: Acute Patient Care (5 credits)

Advanced Pharmacy Practice Experience integrate, apply, reinforce, and advance the knowledge, skills, attitudes, abilities, and behaviors developed in the Pre-APPE curriculum and in co-curricular activities. During the APPE Acute Patient Care Rotation, student pharmacists are engaged in provision of patient care and medication management as part of an interprofessional in-patient based medical team under the supervision of a pharmacist preceptor. Examples of patient focus may include general medicine, critical care, oncology, cardiology, or infectious diseases.

PRX 650 APPE: Indir Patient Care Elec (5 credits)

Advanced Pharmacy Practice Experiences integrate, apply, reinforce, and advance the knowledge, skills, attitudes, abilities, and behaviors developed in the Pre-APPE curriculum and in co-curricular activities. During the APPE Indirect Patient Care Elective Rotation, student pharmacists are able to gain additional knowledge, skills, and experience in businesses, organizations, and pharmacist practices that do not directly engage patients. Common rotations include pharmaceutical industry, managed care, medical communications, management rotations in community and hospital pharmacy, professional organizations, nuclear pharmacy, law offices, and investigations drug services.

PRX 660 APPE: Patient Care Elective (5 credits)

Advanced Pharmacy Practice Experiences integrate, apply, reinforce, and advance the knowledge, skills, attitudes, abilities, and behaviors developed in the Pre-APPE curriculum and in co-curricular activities. During the APPE Patient Care Elective Rotation, student pharmacists are able to gain additional knowledge, skills, and experience in patient care/ pharmacy practice settings such as compounding pharmacy, long term care pharmacy, anticoagulation services, poison control centers, home IV infusion, etc.

PRX 670 APPE: Academic Elective (5 credits)

Advanced Pharmacy Practice Experiences integrate, apply, reinforce, and advance knowledge, skills, attitudes, abilities, and behaviors developed in the Pre-APPE curriculum and in co-curricular activities. During the APPE Academia Elective Rotation, student pharmacists are able to gain additional knowledge, skills, and experience in academic pharmacy. Common experiences during this rotation may include: development of a teaching philosophy statement, creation of course learning activities and assessments, small/large group facilitation, exam proctoring, attending institutional meetings, and observation of various courses, among others.

PRX 680 APPE Research Elective (5 credits)

Advanced Pharmacy Practice Experiences integrate, apply, reinforce, and advance knowledge, skills, attitudes, abilities, and behaviors developed in the Pre-APPE curriculum and in co-curricular activities. During the APPE Research Elective Rotation, student pharmacists are able to gain additional knowledge, skills and experience in research methodology. Experiences may include any or all of the following: exposure to research study design, protocol development, preparation of material for submission to institutional review board (IRB), data collection, data analysis, and publication, among other research-related activities.