PHARMACY PRACTICE

The Department of Pharmacy Practice will equip you with the skills necessary to become a leader and innovator in the pharmacy industry. You will blend science and patient care to improve lives in the vibrant fields of pharmacy practice and administration.

Programs

Undergraduate

Pharmaceutical & Health Care Studies (https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-practice/pharm-healthcare-major/)

Doctoral

Doctor of Pharmacy (PharmD) (https://academiccatalog.sju.edu/health-professions/phila-college-pharm/pharm-practice/pharmd/)

PHP 309 Clinical Reasoning (2 credits)
Students are introduced to the concept and application of clinical reasoning. Clinical reasoning skills are developed through application of the clinical reasoning process during in-class case-based team activities.

PHP 310 Research Design (2 credits)
The appropriate design and application of major study types (surveys, interviews, experimental, naturalistic and participant observational, archival, and combined designs) and ethical issues and legal regulations for animal and human research are addressed. Students learn the knowledge and skills necessary to identify and select a suitable research question and develop an appropriate research protocol including data analysis techniques and budgeting.

PHP 321 Immunotherapies (1 credit)
The immunotherapies elective course focuses on mechanism of action, indications, drug administration and adverse effects of select new immunotherapies including immune checkpoint inhibitors, adoptive cellular therapy, dendritic cell vaccines, and non-cancer therapy monoclonal antibodies.

PHP 322 Labs & Diagnostic Tests (1 credit)
Students learn to assess, interpret, and apply common laboratory and diagnostic tests. Laboratory tests include complete blood count, the basic metabolic panel, arterial blood gas, and tests for cardiac and hepatic damage. Diagnostic tests include the electrocardiogram and chest imaging (chest X-ray, MRI, and CT).

PHP 327 Global Health Determinants (2 credits)
This elective course will introduce and discuss important topics in global health, focusing specifically on care of the underserved in a global context. Topics discussed will include health policy and economics, determinants of health, essential medicines, community-oriented primary care, refugee health, women's health, and climate change. In addition to readings and weekly discussion groups, students enrolled in this course will have the opportunity to gain valuable practice-based skills by working with partner agencies. These opportunities are designed to focus on current and future contributions of pharmacists to global health and the role of global health in pharmaceuticals and pharmacy practice.

PHP 339 Herbs, Supps & Nat Prods (1 credit)
Herbs, supplements, and natural products are commonly used by patients for a variety of health reasons, often alongside conventional medicine. Due to easy access, patients are often using these products without guidance on safety or efficacy. This course will prepare future pharmacists to critically evaluate available evidence on herbs, supplements, and natural products, and to use this information to counsel patients on their safe and effective use.

PHP 340 Cultures & Therapeutics (2 credits)
Students are introduced to the cultural differences between the U.S. healthcare (Western) system and non-Western cultures. The course explores characteristics of non-Western cultures and potential strategies for managing pharmacotherapeutic issues with patients who have healthcare belief systems that differ from the U.S. healthcare cultural system.

PHP 359 Intro to Pharma Industry (2 credits)
This course is designed for Doctor of Pharmacy students to provide an overview of the pharmaceutical industry, with a focus on the career options available to pharmacists. At the end of this course, the student will demonstrate skills that would be used in retrieving & evaluating medical literature to develop medical information documents that are geared for a global audience of healthcare professionals. In addition, the student will learn aspects of adverse event reporting, drug development and approval process, FDA regulations on product labeling and promotional advertising, and sales marketing.

PHP 422 Medication Therapy Mgmt Cert (1 credit)
This advanced MTM (Medication Therapy Management) certificate course will prepare student pharmacists to improve medication use through the delivery of MTM services in a variety of practice settings. At the conclusion of this course, students will have the opportunity to receive the “APhA Delivering Medication Therapy Management Services” certificate.

PHP 451 Adv Asthma Pharmacotherapy (3 credits)
This course is designed to provide an in-depth understanding of the pathophysiology of asthma and evidence-based asthma therapeutics, including the drug-delivery devices, patient assessment skills, and patient education skills.

PHP 495 Project in Pharmacy Practice (1-3 credits)
Opportunity for qualified students to carry out a project in pharmacy practice application or research under the direction of a pharmacy practice faculty member. Each student is required to prepare a report summarizing his/her objectives, progress, and conclusions.

PHP 508 Hospice & Palliative Care (2 credits)
Hospice is one of the fastest growing areas in healthcare today. Increasingly, healthcare professionals are relying on pharmacists to provide recommendations for the management of complicated symptoms at the end of life. The goal of this course is to prepare the pharmacy student to take an active role in the medical management of chronically and terminally ill patients. Students will gain an appreciation for various ethical, social, and legal issues that can impact healthcare provision at the end of life. Furthermore, students will discover the role of the pharmacist as it relates to the interdisciplinary setting of hospice and palliative care.

PHP 514 Psychiatric Illness Approaches (2 credits)
The purpose of the course is to provide an advanced lecture series on the major psychiatric disorders and related special topics with emphasis on psychopharmacologic treatment.
PHP 521 Adv Pulmonary Therapeutics (2 credits)
This course focuses on comprehensive evidence-based therapeutics of pulmonary medical diseases and/or conditions. Using team-based learning, students will gain knowledge of drug-induced lung disease, obstructive lung disease, interstitial and inflammatory lung disease, alveolar lung disease, disorders of the pulmonary circulation, disorders of the pleural space, lung neoplasms, and lung infections.

PHP 523 Ambulatory Care Pharm Practice (2 credits)
This advanced ambulatory care pharmacy practice course will prepare students for providing pharmacy services in primary care settings. Students will build knowledge of practice models and complex therapeutic disease states, improve verbal and written communication skills with patients and providers, and gain experience with utilizing an electronic medical record.

PHP 524 Care of the Geriatric Patient (2 credits)
Students are introduced to the interprofessional nature of geriatric patient care. Focus is placed on the care of geriatric patients from a variety of different health care perspectives using simulated patient cases to continue development of students’ abilities in therapeutics, problem solving, and communication.

PHP 525 Cardiovasc Disease Risk Mgmt (2 credits)
The course will provide an in-depth understanding of the pathophysiology of cardiovascular disease, cardiovascular risk assessment, therapeutic lifestyle changes, and evidence based pharmacotherapy. This course will assist students to further develop their critical thinking, clinical decision-making, and patient/healthcare professional communication skills for managing patients with or at risk for cardiovascular disease. At the conclusion of this course, students will receive the APhA-Pharmacy-Based CVD Risk Management Certificate.

PHP 529 Intro to Pediatric Pharm Pract (2 credits)
This course is designed to develop skills for the management of neonatal and pediatric drug-related challenges. Basic principles governing optimal drug therapy, such as drug delivery, pharmacokinetics, pharmacodynamics, and assessment of neonatal and pediatric patients will be reviewed. Selected pediatric dilemmas will be discussed with emphasis on medication safety and administration, pediatric resources, and dosing. Problem-solving and decision-making skills will be fostered through patient case presentations and discussions utilizing primary and tertiary resources.

PHP 541 Pharmacogenomics (2 credits)
Basic science of pharmacogenomics with an emphasis of the applications of pharmacogenomic principles to improve drug therapy outcomes.

PHP 547 Critical Care Therapeutics (2 credits)
The course will offer an introduction to the pharmacotherapeutic management of the critically ill patient. The pathophysiology and drug therapy of selected problems in the critically ill population will be covered. Students in the course will discuss these topics with a number of activities throughout the semester. The course will strengthen the student’s ability to evaluate and apply primary literature as well as verbal presentation skills. Active participation will allow the student to hone their clinical skills in real-life situations.

PHP 559 Acute Care Medicine (2 credits)
Students will focus on guidelines and evidence-based medicine to further develop the skills and knowledge base in therapeutics in order to provide optimal drug therapy to internal medicine patients who are hospitalized. Faculty will utilize a problem-based learning format in the course to facilitate critical thinking development and student-centered learning.
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 pharmaceutics specific disease states and therapeutic decision-making. This module focuses on the principles that underlie 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 pharmaceutics 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 pharmaceutics 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 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 Extric 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 pharmacoconomics, drug selection, and health coverage laws.

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.

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 pharmaceutics 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 pharmaceutics, 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/Reproductive (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 pharmaceutics 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 452 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 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 (3 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 (3 credits)
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 pharmaceutics 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 pharmaceutics, to disease states and therapeutic decision-making in relation to gastrointesinal and nutritional disorders. The module encompasses the etiology, pathophysiology, prevention, pharmacologic and non-pharmacologic treatment, and self care.
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 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 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.