PHARMACY PRACTICE (PHP)

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 335 History of Pharmacy (2 credits)

This course introduces students to the history and development of the Profession of Pharmacy with special emphasis placed on US history and the role of Philadelphia College of Pharmacy in the development of the profession. Students will explore the growth of professionalism and professional organizations, professional practice, commercial and industrial growth, pharmacy education and the sciences. The course will use literature and narratives to foster an interest in history and better understand the impact of leaders and entrepreneurs on the development of the profession. A unique aspect of the course will be utilizing items from the Marvin Samson Museum for the History of Pharmacy as well as rare documents in the library to augment the learning experience. *Attributes*: Undergraduate

PHP 339 Herbals, Supps & Nat Prods (1 credit)

Herbals, 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 herbals, 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 345 Pharmacy Book Club (2 credits)

This course will allow students to explore the experience of illness and navigating the healthcare system through the point of view of patients and their caregivers. Students will read, discuss, and complete writing assignments about books that address the emotions, attitudes, beliefs, and concerns of patients suffering with illness, including social determinants of health, health disparities, and psychosocial factors. Students will get an authentic view of how health impacts a patient's daily life and the role of the healthcare provider in impacting a patient's experience of disease and the health care system.

Attributes: Undergraduate

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 370 Special Topics in Pharm Prac (2-3 credits)

Topics will vary according to the semester in which the class is offered. *Attributes:* Undergraduate

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 APhAPharmacy-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.