Course Descriptions

Required Didactic Courses

**PHA 303. Communication Skills for Pharmacists** (3 hours)
This course is designed to develop communication skills necessary for effective pharmacy practice. The skills and techniques mastered in this course will be applied throughout the curriculum within the framework of complex patient scenarios and multiple disease states.

**PHA 305. Pharmacy Management** (3 hours)
This course will introduce students to 1) basic management principles and methods; 2) developing and managing community pharmacy prototypes; and 3) entrepreneurial, social and economic aspects of practice.

**PHA 306. Introduction to Pharmacy** (2 hours)
This course is designed to introduce the first professional year pharmacy student to the scope of the profession of pharmacy. Students will be given the background needed for full participation in their chosen profession. Students will learn: the history and future trends for their chosen profession; the tenets of professionalism; patient and population trends; health behaviors and behavioral change; the medication use process and patient safety; the social aspects of health and illness. Students will also participate in career planning, begin to develop and maintain their curricula vitae, and identify and explore their many career options as pharmacists. The concept and classroom application of Problem-Based Learning (PBL) will be introduced. They will also acquire the skills of self-directed learning, critical reasoning, self-evaluation, interpersonal communication, and the ability to retrieve, access, synthesize, and present information. The course is designed to provide the student with what to expect from pharmacy and, most important, what pharmacy expects from them.

**PHA 308. Health Care Delivery** (2 hours)
This course is designed to introduce students to the system of health care delivery in the United States and the roles that pharmacy and pharmacists play in it. The course will cover the topics of health economics, health insurance, managed care, Medicare and Medicaid, pharmacoeconomics, pharmacoepidemiology, and the role of governments in health care.

**PHA 309. Research Design and Literature Evaluation** (2 hours)
This course is intended to enable the student to develop an understanding of basic statistics, research design and literature evaluation procedures and terms such that clinical studies in the medical and pharmaceutical literature may be objectively evaluated. In addition, the student is provided with the necessary tools such that he or she will be able to effectively describe, summarize, analyze and make valid conclusions from data collected through his or her own research endeavors.

**PHA 311. Pharmacy Law** (2 hours)
This course is designed to impart to students the legal basis of pharmacy practice. The course emphasizes the pharmacist’s responsibility to care for patients and to respect patients as autonomous individuals. It also queries how far the government and licensed health care professionals should go to protect people from the consequences of their own potentially risky choices in drug use.

**PHA 312. Leadership and Advocacy in Pharmacy** (2 hours)
This course is designed to cover foundational concepts and skills in leadership and advocacy to prepare students for elected and appointed positions and non-positional leadership. Students will develop an understanding of the components that make leadership successful and their personal strengths as a leader.
PHA 324. Medical Immunology (3 hours)
This course provides a comprehensive foundation in the structure and function of the human immune system with emphasis on human immunopathology. Topics include innate immunity, adaptive immunity, functions of B and T lymphocytes, immunodeficiency, hypersensitivity, autoimmune disease, transplantation immunity, cancer immunity and vaccination. Case studies are used throughout the course to illustrate how the immune system works and show the consequences and treatments for common human immunopathologies.

PHA 325. Principles of Pharmaceutical Sciences (3 hours)
This course is intended to provide a foundation of the concepts that are fundamental to the study of pharmacy and the pharmaceutical sciences. This basic knowledge will allow the student pharmacist to integrate physical, chemical and biological concepts into various practice functions. The course will incorporate various active learning activities to assist the student pharmacist with the development of integrative competency.

PHA 326. Pharmaceutics (4 hours)
This course is intended to give the student a basic knowledge of the pharmaceutical principles involved in formulation, design, compounding and evaluation of dosage forms and drug delivery systems. This course will cover liquid dosage forms (solutions and disperse systems), parenteral delivery systems, solid dosage forms (capsules, tablets, oral controlled-release products), dosage forms applied to skin, and radiopharmaceuticals. An introduction to biotechnology preparations will also be provided. The course will also familiarize the student with the concepts of drug standards, good manufacturing practice and quality control. The student will gain background knowledge and skills necessary to apply biopharmaceutical principles to the selection and evaluation of drug products for use in patients. Emphasis will be placed on the various formulation and physiologic factors that affect drug response and absorption.

PHA 328. Principles of Pharmacokinetics (2 hours)
This course examines the physiological and quantitative principles of drug absorption, distribution, metabolism and excretion in vivo, which provide the very basis for rational design of dosage regimens of therapeutic agents.

PHA 340. General Principles of Pharmacotherapy (2 hours)
This course examines topics that provide the foundation for the rational use of therapeutic agents. Pharmacology and one of its primary subdisciplines, pharmacodynamics, are discussed extensively. Pharmacogenetics, pharmacoepidemiology and laboratory monitoring to assess a pharmacotherapeutic response are examined. Pharmacotherapy considerations for the special population of geriatrics, pediatrics and the pregnant and lactating patient are also examined.

PHA 371. Practice of Pharmacy I (2 hours)
This course is a combination of lectures, activities, assignments, and skills development that are the didactic counterpart to the P1 Introductory Pharmacy Practice Experiences (IPPEs) and other P1 courses. Assessment of fundamental knowledge and skills important to pharmacy practice and patient care will occur.

PHA 372. Practice of Pharmacy II (2 hours)
This course is a combination of lectures, activities, assignments, and skills development that are the didactic counterpart to the P1 Introductory Pharmacy Practice Experiences (IPPEs) and other P1 courses. Assessment of fundamental knowledge and skills important to pharmacy practice and patient care will occur.
PHA 401. Pharmaceuticals Laboratory  (1 hour)
This course is designed to acquaint the student pharmacist with basic compounding skills and techniques related to pharmaceutical dosage forms. The course also involves the study of the mathematics encountered in pharmacy practice and the application of calculations in laboratory exercises. The laboratory is planned around a student-centered, problem-based approach to learning.

PHA 450. Nervous System Disorders I  (5 hours)
This course is designed to provide an in depth understanding of the nervous system and its therapeutics to the pharmacy student. The anatomy and physiology of the central nervous system and peripheral nervous system (including the autonomic nervous system) will be discussed. Drugs that affect the central nervous system, the autonomic nervous system and the neuromuscular junction will also be discussed. In addition, the pathophysiology of various disease states involving the nervous system and the pharmacology, medicinal chemistry and therapeutic use of drugs used to treat these disease states will be discussed. Course content will emphasize: anatomy and physiology; pathophysiology; mechanisms of drug action; drug mechanisms related to the occurrence of adverse effects; recognition and management of medication-related problems; and decision-making processes including utilization of laboratory tests to monitor drug efficacy and toxicity. Case studies will be used to assist students in developing and monitoring medication therapy management (MTM) plans for patients with various disease states.

PHA 451. Nervous System Disorders II  (4 hours)
This course is designed to provide an in depth understanding of the nervous system and its therapeutics to the pharmacy student. The pathophysiology of various disease states involving the nervous system and the pharmacology, medicinal chemistry and therapeutic use of drugs used to treat these disease states will be discussed. Course content will emphasize: pathophysiology; mechanisms of drug action; drug mechanisms related to the occurrence of adverse effects; recognition and management of medication-related problems; patient assessment; and decision-making processes including utilization of laboratory tests to monitor drug efficacy and toxicity. Case studies will be used to assist students in developing and monitoring medication therapy management (MTM) plans for patients with various disease states.

PHA 456. Integument and Special Senses  (3 hours)
This course is designed to integrate the anatomy, physiology, pathophysiology, and patient assessment aspects of dermatological and eye/ear/oral disorders with the relevant medicinal chemistry, pharmacology, and pharmacotherapy of the prescription and non-prescription medications used to treat and prevent these disorders.

PHA 461. Cardiovascular/Renal Disorders I  (5 hours)
This course is designed to expand knowledge of the anatomy, physiology, pathophysiology and treatment of cardiovascular/renal disorders. This course will include the following topics/conditions: introduction to heart anatomy/physiology, dyslipidemia, hypertension, anemia, coagulation, introduction to kidney anatomy/physiology, chronic kidney disease, end stage renal disease and acute kidney injury. Topics will be presented in an integrated manner and will include relevant physiology, pathophysiology, pharmacology, medicinal chemistry, pharmacotherapy, pharmacokinetics, social and behavioral aspects of medical management and OTC products of specified disease states. The student pharmacist will be required to integrate knowledge across these areas and apply the knowledge to patient cases in both written and oral form. Counseling points for each class of medications will be included. The clinical and problem-solving skills obtained through completion of this course will prepare the student to properly identify, assess, and
resolve complex, medication-related problems and other patient issues relating to cardiovascular disorders as well as counsel patients.

**PHA 462. Cardiovascular/Renal Disorders II** (5 hours)
This course is designed to expand knowledge of the anatomy, physiology, pathophysiology and treatment of cardiovascular/renal disorders. This course will include the following topics/conditions: venous thromboembolism, peripheral artery disease, ischemic heart disease, acute coronary syndrome, acid/base disorders, fluid and electrolytes, chronic heart failure, acute heart failure, arrhythmias and stroke. Topics will be presented in an integrated manner and will include relevant physiology, pathophysiology, pharmacology, medicinal chemistry, pharmacotherapy, pharmacokinetics, social and behavioral aspects of medical management and OTC products of specified disease states. The student pharmacist will be required to integrate knowledge across these areas and apply the knowledge to patient cases in both written and oral form. Counseling points for each class of medications will be included. The clinical and problem-solving skills obtained through completion of this course will prepare the student to properly identify, assess, and resolve complex, medication-related problems and other patient issues relating to cardiovascular disorders as well as counsel patients.

**PHA 465. Pulmonary Disorders** (3 hours)
This course is designed to apply the principles of anatomy, physiology, pathophysiology, patient assessment, and social and behavioral aspects of pulmonary disorders with the medicinal chemistry, pharmacology, pharmacotherapy and clinical pharmacokinetics of the prescription and non-prescription medications used to treat and prevent these disorders. The specific disorders discussed in this course include asthma, chronic obstructive pulmonary disease (COPD), allergic rhinitis, cough and cold, acute respiratory distress syndrome, neonatal respiratory distress syndrome and the pulmonary component of cystic fibrosis. The clinical and problem-solving skills obtained through completion of the course will prepare the student pharmacist to properly identify, assess, and resolve complex, medication-related problems and other patient issues relating to pulmonary disorders.

**PHA 473. Practice of Pharmacy III** (2 hours)
This course is a continuation of the Practice of Pharmacy series of courses and is a combination of lectures, activities, assignments, laboratories, skills development, and assessments that are intended to provide reinforcement of concepts taught in the didactic portion of the curriculum. Continual assessment of basic knowledge and skills important to pharmacy practice and patient care will occur, as well as the application of skills necessary to provide pharmacy care.

**PHA 474. Practice of Pharmacy IV** (2 hours)
This course is a continuation of the Practice of Pharmacy series of courses and is a combination of lectures, activities, assignments, laboratories, skills development, and assessments that are intended to reinforce concepts taught in the didactic portion of the curriculum. A specific topic and skill focus unique to this course is immunization training. Continual assessment of basic knowledge and skills important to pharmacy practice and patient care will occur, as well as the application of skills necessary to provide pharmacy care.

**PHA 533. Musculoskeletal Disorders and Pain** (5 hours)
This is an integrated course describing the anatomy and physiology of bones, skeletal muscles and joints, and pathways for pain and inflammation throughout the body. The pathophysiology of diseases affecting the musculoskeletal system to cause pain, inflammation, and musculoskeletal deterioration will be discussed. The medicinal...
chemistry, pharmacology, pharmacotherapy, and therapeutics of medications used to treat disorders of this system and to appropriately treat pain and inflammation will be thoroughly described. Therapy to alter the course of diseases and appropriately manage pain and inflammation will be emphasized.

**PHA 534. Endocrine Disorders** (5 hours)
This course is designed to introduce the student to the physiology, pathophysiology, and pharmacotherapy of diseases of the endocrine and reproductive systems. Students should be able to explain why drugs are effective in specific disorders of these systems. Emphasis will be placed on structure activity relationships, mechanisms of drug action, pharmacological effects, adverse effects, and clinical use of these drugs. Other areas that the course will focus on include: recognition and management of medication-related problems, social and behavioral aspects of different disease states, decision-making processes in drug selection and utilization of laboratory tests to monitor drug efficacy and toxicity. The case study approach will be utilized to assist the student in monitoring a pharmaceutical care plan for the patient.

**PHA 535. Gastrointestinal Disorders** (3 hours)
This course is designed to familiarize the student with the anatomy and physiology of the gastrointestinal tract and accessory organs, the pathophysiology of the major diseases affecting these organs, the pharmacology of drugs used to treat these diseases and the therapeutics associated with the pharmaceutical care of patients with these diseases.

**PHA 554. Infectious Diseases I** (4 hours)
This course is designed to provide the pharmacy student with solid background in the pharmacology and medicinal chemistry of chemotherapeutic agents used in the treatment of bacterial, parasitic, fungal, and viral-mediated infectious diseases. Additionally, the course will encompass individual microbes and the mechanisms of diseases they cause. Topics of emphasis in regards to microbial pathophysiology will be pharmacological effects of agents, mechanism of action, structure-activity relationships, mechanisms of resistance, and the pharmacological/chemical basis for drug considerations/untoward effects. Knowledge gained by the completion of this course will prepare the student for clinical and pharmacotherapeutic considerations and decision making with regards to drug efficacy, drug of choice, adverse drug reactions, and other medication-related problems which are discussed in Infectious Disease II (PHA 555).

**PHA 555. Infectious Diseases II** (3 hours)
An integrated course, will discuss the epidemiology, pathophysiology, patient assessment, social and behavioral aspects, and therapeutics of infectious diseases as it relates to the organisms that cause these diseases. Students will be expected to know the medicinal chemistry and pharmacology of chemotherapeutic agents from Infectious Diseases I (PHA 554) used to treat microbial and viral infections and apply this information to the clinical treatment of diseases. Emphasis will be placed on structure activity relationships, mechanisms of action, overall pharmacological effects and mechanisms of adverse effects produced by drugs used to treat infectious diseases. Interpretation of the clinical literature will be required in making decisions regarding drug efficacy, drug of choice, adverse drug reactions, and other medication-related problems. Knowledge gained by the completion of this module will prepare the student to properly identify, assess, and resolved complex, medication-related problems and other patient issues related to infectious diseases.

**PHA 557. Hematology and Oncology Disorders** (3 hours)
This course is designed to integrate the anatomy, physiology, pathophysiology, and patient assessment of hematologic disorders (anemia, thrombocytopenia, hematologic malignancies) and oncology disorders (solid malignancies) with the medicinal chemistry,
pharmacology, pharmacotherapy, and relevant pharmaceutics of prescription and non-prescription medications, and non-chemotherapeutic strategies used to manage and prevent the disorders. Relevant diagnostic procedures used in wellness care, diagnosis, and treatment follow-up will be presented along with aspects of supportive care for the oncology patient and management of oncologic emergencies.

**PHA 575. Practice of Pharmacy V** *(2 hours)*  
This course is a continuation of the Practice of Pharmacy series of courses and is a combination of lectures, activities, assignments, laboratories, skills development, and assessments that are intended to provide reinforcement of concepts taught in the didactic portion of the curriculum. Continual assessment of basic knowledge and skills important to pharmacy practice and patient care will occur, as well as the application of skills necessary to provide pharmacy care.

**PHA 576. Practice of Pharmacy VI** *(2 hours)*  
Patient Care Experience VI is a continuation of the courses consisting of activities designed to bring relevance to concepts presented in the classroom at the P3 level. The experience should continue the transition from didactic instruction to the application or practice phase of pharmacy to better prepare the student pharmacist as a provider of patient care.

**PHA 590. Integrated Pharmaceutical Care** *(3 hours)*  
This course emphasizes the implementation of the professional concepts of pharmaceutical care (PC) to prepare students to provide direct patient care. This includes the responsible provision of drug therapy to achieve definite outcomes that improve a patient's quality of life. This course will be presented using clinical patient cases and will integrate knowledge, skills, and competencies relevant to various aspects of pharmacy practice. Students will learn how to collect and interpret data to design, recommend, carry out, monitor, and adjust patient specific pharmacotherapy plans. Students will also learn how to work in collaboration with each other. This is a student-centered learning, performance-based course that is designed to assist the student in the improvement of several professional skills. These skills are: problem-solving skills, group dynamic skills, interviewing skills, presentation skills, writing skills, drug-information skills, and self-evaluation skills.

**Elective Didactic Courses**

**PHA 505. Community Pharmacy Ownership** *(2 hours)*  
A course designed to provide the student with the information necessary to become a community pharmacy owner either through the establishment of a new pharmacy or the purchase of an existing pharmacy practice. The knowledge necessary for efficient and profitable management in layout and design, location analysis, evaluation of third party plans, and promotion are emphasized as well as the financial aspects of the development and implementation of innovative clinical services in the community setting. The course includes case studies and group projects in addition to didactic classes.

**PHA 509. Introduction to Teaching** *(2 hours)*  
Prerequisites: consent of instructor and a GPA of 3.5 or better is required.  
A course designed to stimulate interest of pharmacy students in a career in teaching. Through facilitating small groups of students, discussing readings from the literature, and assisting faculty in a variety of teaching activities, the student is better able to evaluate the possibility of a career in teaching. (This course may be taken up to two times for credit.)
**PHA 516. Advanced Community Practice** (2 hours)
This course is intended to prepare the student for a successful career in community pharmacy practice. This course will focus on practical knowledge needed to be effective in community practice including patient management, workforce development, preceptor development, customer service, inventory control, and opportunities for growth. The course will utilize guest lectures, discussions, case studies, and student presentations. By course completion, the student will obtain knowledge needed to successfully manage and operate a community pharmacy.

**PHA 519. Contemporary Pharmacy Topics** (2 hours)
This didactic course is intended to develop the student's critical thinking and appreciation of timely pharmacy-related topics. Pharmacy residents lecture on contemporary topics related to the courses taught in the core curriculum. These topics will expand students' knowledge of pharmacy and increase awareness of the opportunities available for pharmacists. The topics will be introduced with a didactic lecture followed by a diverse array of active learning activities (patient cases, debates, literature evaluation, etc.). The topics discussed will be relevant to current pharmacy practice and will facilitate the growth of critical thinking and problem-solving skills necessary for our students. Enrollment in the Contemporary Pharmacy Topics Elective is restricted to 40 second and third year Doctor of Pharmacy Students.

**PHA 520. Veterinary Pharmacy** (2 hours)
Veterinary Pharmacy provides an overview of the pharmacotherapeutics of common diseases and conditions of companion and selected food-producing animals. Legal and regulatory issues associated with veterinary drug dispensing will also be addressed.

**PHA 527. Pharmaceutical Biotechnology** (2 hours)
This course is intended to provide the student with a working knowledge of the preparation, stability and formulation of different protein and peptide drugs such as antisense agents, transgenic therapeutics and gene therapy. Current FDA approved biotechnology drugs such as human insulin, growth hormones and interferons will be discussed.

**PHA 529. Contemporary Compounding** (2 hours)
This course involves learning the concepts of contemporary compounding practice. This course will include a discussion of the regulations governing compounding, USP and scientific/professional organization recommendations for compounding, and mechanisms for evaluation and analysis of the quality of a compounded formulation. The course will use discussions, problem-solving cases and skill-building laboratories to help the student learn the contemporary compounding process.

**PHA 531. Medical Ethics for Health Care Professionals** (2 hours)
Advancing medical knowledge and technology present individuals and society with unprecedented choices which often raise ethical dilemmas. This course prepares students in the health professions for dealing with ethical dilemmas through an analysis of classic and current cases, identification of ethical issues involved, application of ethical principles, development of a personal position, and consideration of counter-arguments.

**PHA 532. Computer-Assisted Drug Design** (2 hours)
This elective course is for Pharmaceutical Sciences graduate students and third-professional year Pharmacy students. This is a survey course designed to introduce students to the methods, applications, and limitations of computational chemistry in drug discovery.
PHA 548. Project Development (2 hours)
Prerequisites: consent of instructor and a GPA of 2.5 or better is required. This course is designed to acquaint the student with the techniques involved in the development of a project in either the basic or clinical sciences. A project will be assigned to the student and the student will be expected to perform literature reviews and other work deemed necessary by the faculty instructor to produce an acceptable final written report. (This course may be taken up to two times for credit.)

PHA 548A. Project Development (1 hour)
This section of Project Development is limited to students participating in Mercer on Mission.

PHA 549. Introduction to Research (2 hours)
Prerequisites: consent of instructor and a GPA of 2.5 or better is required. This course is designed to acquaint the student with current techniques utilized in basic and clinical research. A problem will be assigned by the instructor and the student will be expected to do the library and laboratory or clinical work required to prepare a report. (This course may be taken up to three times for credit.)

PHA 559. Pharmaceutical Industry Practice (2 hours)
This elective course is designed to introduce students to skills and competencies that are required for practice in the pharmaceutical industry. Students will have the opportunity to develop and demonstrate proficiency in these skill sets. The course will provide an in-depth discussion of various functions within industry with an emphasis on student application of concepts. Topics to be addressed include legal issues, regulatory affairs, medical affairs, drug information, clinical drug development, translational medicine, scientific publication strategy, medical writing, health outcomes, marketing, sales, managed care, corporate management, and public policy.

PHA 560. Substance Abuse (2 hours)
This course is designed to give the student an introduction to the area of substance abuse and dependency. It is intended that upon completion of this course the student will have an appreciation for the terminology and diagnostic criteria appropriate to this specialty, a clear understanding of the drugs involved, their effects, and be able to explain pharmacological and non-pharmacological interventions.

PHA 562. Natural Medicines and Self Care (2 hours)
This course is designed to give the interested student additional knowledge and skills on health promotion in order to be a better educated pharmacist and consumer. The primary focus will be on the scientific basis of alternative medicine therapies in the prevention and treatment of acute and chronic illness. A secondary focus will be on the prevention and detection of heart disease, cancer, and mental illness, including the impact of lifestyle changes on disease management. The use of diagnostic tests, utilized to screen disease and monitor patient response to selected drug therapy, will also be discussed.

PHA 564. Geriatric Pharmacy (2 hours)
This course will allow opportunity for discovery of the importance of drug-related problems in the geriatric patient. Major topics include the psychosocial aspects of aging; the impact of physiologic changes on pharmacotherapy problems in the aging patient; issues and strategies for managing medication therapy in geriatric patients; and roles of the pharmacist in providing pharmaceutical care to geriatric patients at various levels of care.
PHA 565. Drug Misadventures (2 hours)
This course is designed to provide a deeper understanding of serious drug misadventures including: adverse drug reactions, medication errors, drug interactions, and drug allergies. Emphasis is on problem solving and the identification of preventative measures.

PHA 566. Women’s Health (2 hours)
This course is designed to enable the student to develop an understanding of issues of importance in women’s health, including health promotion and prevention, health problems with a higher prevalence or a different presentation in women than men, and women’s health policy and research. Problems unique to women’s health and therapy important in the pharmacist’s provision of pharmaceutical care to female patients will be emphasized. The topics discussed will be those relevant to women’s health that are not covered in required courses or those that are not covered in detail in required courses. Student participation is an integral part of the course.

PHA 569. Diabetes Care (2 hours)
This course is designed to provide students with additional education in the care of patients with diabetes. The course’s primary objective is to increase students’ aptitude and confidence in providing medication therapy management to patients with diabetes while reinforcing the knowledge of drug therapy that was taught in the endocrine curriculum.

PHA 571. Pediatric Pharmacotherapy (2 hours)
This elective course will provide students with an understanding of the healthcare needs of the pediatric patient. In addition, the students will develop knowledge and skills to provide pharmaceutical care to pediatric patients in both ambulatory and inpatient settings. The course will focus on developmental stages of growth, common pediatric disease states, pediatric practice specialties, and specific pharmacotherapeutic considerations unique to pediatric patients. The course will be taught through a combination of lectures, case discussions, presentation, and active learning components.

PHA 572. Spanish for Pharmacists (2 hours)
This course is designed to give the student, who is a non-Spanish speaker, a solid basis in verbal communication in a pharmacy setting with patients who speak mostly or all Spanish. By speaking Spanish, students will be better equipped to provide pharmaceutical care to their Spanish-speaking patients. The primary focus of the course will be pharmacy specific terms, phrases and communication skills with a secondary emphasis on elementary and practical Spanish. In addition, the course will educate students about health beliefs and practices in Hispanic cultures.

PHA 577. Ground Rounds (2 hours)
This didactic course is intended to develop the student’s critical thinking and appreciation of timely and controversial pharmacotherapeutic topics. The topics will be introduced with a case and followed by lecture and active learning activities. The topics discussed will be relevant to current practice and will facilitate the growth of critical thinking skills used by health care providers for our students. This course will also highlight the roles of different health care providers in patient care.

PHA 579. Global Health for Pharmacists (2 hours)
This course is designed to increase the student’s knowledge of and sensitivity to people of diverse cultural backgrounds and their needs for healthcare services. Social, political, cultural, religious, and economic factors will be evaluated in demonstrating how healthcare practitioners may contribute to the promotion of healthy living through the provision of healthcare services to underserved populations on a global level.
PHA 582. Managed Care Pharmacy 
(2 hours)
This elective course is intended to develop the student’s critical thinking, basic principles and applications of managed care pharmacy practice. The topics will be introduced with didactic lectures, case studies, guest speakers, and active learning activities. This course will provide an overview of managed care pharmacy and an understanding of how managed care pharmacy impacts the healthcare system. By course completion, the student will obtain knowledge of managed care pharmacy that can be a valuable preparation for experiential education and career opportunities in a variety of practice settings, including a managed care organization, hospital administration and community pharmacy management.

PHA 583. Advanced Leadership 
(2 hours)
This elective course is designed to build upon the foundational concepts and skills in leadership and advocacy learned in the required course, PHA 312: Leadership and Advocacy in Pharmacy. Students will develop an advanced understanding of the components that make leadership successful and their personal strengths as a leader through classroom, reflection, and experiential activities.

Pharmacy Practice Experiences

Required Introductory Pharmacy Practice Experiences (IPPEs)

Students are required to complete the following introductory pharmacy practice experiences during the first, second, and third professional years. Professional development portfolios are a required component for successful completion of the Practice of Pharmacy and Introductory Pharmacy Practice Experience courses. College policy requires that all students have proper records of required intern licensure, immunizations and health screenings, and proof of current health insurance prior to any assignment to a patient care setting. Students are also subject to background checks and drug screenings as required by their assigned experiential sites’ policies.

These courses incorporate required Introductory Pharmacy Practice Experiences (IPPEs) which are composed of Service-Learning and Introductory Pharmacy Practice Competencies: Clinical Skills and Simulation Laboratory (P1 and P2), Global Health & Wellness (P1), Community-based (P2), Institution-based (P3), Medication Therapy Management (P3), and a Capstone component (P3). The goal of Service Learning is for students to develop a sense of personal responsibility for addressing the problems and needs of society through active participation in civic and community organizations which are health care related. This experience also fosters student understanding of how pharmacists can make positive impacts in the lives of their patients. The objective of this experience is to provide the student with the means to enhance awareness of themselves and the social, civic and ethical issues that surrounds their everyday lives.

PHA 381. Introductory Pharmacy Practice Experiences I 
(1 hour)
This is the first of six required experiential courses of the Introductory Pharmacy Practice Experience (IPPE) sequence. Students will participate in pharmacy practice activities and will be expected to utilize the knowledge learned in the Practice of Pharmacy course sequence. Students will spend time in the Clinical Skills and Simulation Laboratory learning about the medication use system in community pharmacy practice. Students will demonstrate the following core practice skills: Communication, patient counseling, patient assessment, pharmacy calculations, ethics, medication safety, informatics, and critical thinking. The remainder of the semester will be spent providing healthcare based Service Learning to the community. Students will demonstrate the following core practice skills: Wellness and health promotion, communication, and health screening.
PHA 382. Introductory Pharmacy Practice Experiences II (1 hour)
This is the second of six required experiential courses of the Introductory Pharmacy Practice Experience (IPPE) sequence. Students will participate in pharmacy practice activities and will be expected to utilize the knowledge learned in the Practice of Pharmacy course sequence. Students will spend time in the Clinical Skills and Simulation Laboratory learning about the medication use system in community pharmacy practice. Students will demonstrate the following core practice skills: Communication, patient counseling, patient assessment, pharmacy calculations, ethics, medication safety, informatics, and critical thinking. In the Global Health & Wellness IPPE, students will complete scheduled meetings with students in the English Language Institute (ELI) program. This experience fosters student understanding of how pharmacists can make positive impacts through communication and empathy for those from different cultural backgrounds. Students will demonstrate the following core practice skills: Communication, wellness and health promotion, and cultural competency. The remainder of the semester will be spent providing healthcare based Service Learning to the community. Students will demonstrate the following core practice skills: Wellness and health promotion, communication, and health screening.

PHA 483. Introductory Pharmacy Practice Experiences III (1 hour)
This is the third of six required experiential courses of the Introductory Pharmacy Practice Experience (IPPE) sequence. Students will participate in pharmacy practice activities and will be expected to utilize the knowledge learned in the Practice of Pharmacy course sequence. Students will spend time in the Clinical Skills and Simulation Laboratory learning about the medication use system in institutional pharmacy practice and how the pharmacist can have an impact on various public health initiatives. Students will continue with their Service Learning IPPE. Students will demonstrate the following core practice skills during IPPE III: Communication, patient counseling, patient assessment, pharmacy calculations, ethics, medication safety, informatics, critical thinking, cultural competency, wellness and health promotion, and health screening.

PHA 484. Introductory Pharmacy Practice Experiences IV (1 hour)
This is the fourth of six required experiential courses of the Introductory Pharmacy Practice Experience (IPPE) sequence. Students will participate in pharmacy practice activities and will be expected to utilize the knowledge learned in the Practice of Pharmacy course sequence. Students will be assigned to a community pharmacy setting for an 80-hour experience; this will expose the students to the broad-based daily duties often required of a community pharmacist. The student will gain experience in providing patient care, dispensing prescriptions, and understanding the administrative functions of a pharmacist in the community setting. Students will continue with their Service Learning IPPE. Students will demonstrate the following core practice skills during IPPE IV: Communication, patient counseling, patient assessment, pharmacy calculations, ethics, and medication safety.

Note: Upon completion of all P1 curricular requirements and with approval of the Director of Introductory Pharmacy Practice Experiences, students may complete the Service Learning and/or Community Pharmacy portions of PHA 483/484 during the summer between their P1 and P2 year. Students must be registered for P2 classes and academic credit will be awarded during the P2 year.

PHA 585. Introductory Pharmacy Practice Experience V (1 hour)
This is the fifth of six required experiential courses of the Introductory Pharmacy Practice Experience (IPPE) sequence. Students will participate in pharmacy practice activities and will be expected to utilize the knowledge learned in the Practice of Pharmacy course sequence. The Educational Medication Therapy Management Experience will provide students with patient-centered care activities in a community-based setting with older...
Adults. Students will spend additional time during the year continuing with their Service Learning IPPE. Students will demonstrate the following core practice skills during IPPE V: Communication, patient counseling, patient assessment, pharmacy calculations, ethics, medication safety, informatics, critical thinking, cultural competency, wellness and health promotion, and health screening.

**PHA 586. Introductory Pharmacy Practice Experience VI (1 hour)**

This is the sixth of six required experiential courses of the Introductory Pharmacy Practice Experience (IPPE) sequence. Students will participate in pharmacy practice activities and will be expected to utilize the knowledge learned in the Practice of Pharmacy course sequence. Students will be assigned to an institutional pharmacy setting for an 80-hour experience; this will expose the students to the broad-based daily duties often required of an institutional pharmacist. The student will gain experience in understanding the medication use process and understanding the administrative functions of a pharmacist in the institutional setting. Students will spend additional time during the year continuing with their Service Learning IPPE. Students will demonstrate the following core practice skills during IPPE VI: Communication, patient counseling, patient assessment, pharmacy calculations, ethics, medication safety, informatics, critical thinking, cultural competency, wellness and health promotion, and health screening.

**Note:** Upon completion of all P2 curricular requirements and with approval of the Director of Introductory Pharmacy Practice Experiences, students may complete the Service Learning and/or Institutional Pharmacy portions of PHA 585/586 during the summer between their P2 and P3 year. Students must be registered for P3 classes and academic credit will be awarded during the P3 year.

**Advanced Pharmacy Practice Experiences (APPEs)**

Students are required to complete eight advanced pharmacy practice experiences during the fourth professional year. Students must have satisfactorily completed all required and elective courses in the professional curriculum to be eligible for fourth year standing and to start the advanced experience sequence. Advanced pharmacy practice experiences are preferentially assigned to students on normal academic progression. Students who interrupt their normal academic progression will be assigned to experiential sites as they become available. Exceptions may be made at the discretion of the Chairperson of the Pharmacy Practice Department.

Five (5) advanced pharmacy practice experiences (APPEs) are required in the areas of Community Pharmacy, Institutional Pharmacy, Acute Care (2), and Ambulatory Care. Three (3) practice experiences are electives. Each APPE is five (5) weeks in length. A one-week Pharmacotherapy Case Conference course is also required.

Students are surveyed during the third professional year to determine elective preferences and eligibility for assignment. Students may repeat a course one time to fulfill an elective requirement. Assignments are made through an online program that randomly assigns students based on site availability.

During advanced pharmacy practice experiences, students will gain competency in the following areas: problem-oriented drug monitoring; therapeutic drug monitoring; medication histories; managing a patient's drug therapy; identification, resolution and prevention of drug-related problems; drug information/retrieval skills; application of knowledge of diseases and drug therapy to pharmaceutical care; consulting and counseling with health care professionals and patients; education of health care professionals; communication and presentation skills; and professional conduct.

College policy requires that all students have proper records of required immunizations and health screenings and proof of current health insurance prior to any assignment to a patient care setting. Students are also subject to background checks and drug screenings as required by their assigned experiential sites’ policies.
The majority of Mercer’s advanced pharmacy practice experiences are completed within the following areas: metropolitan Atlanta, Chattanooga, Columbus, Macon, and Savannah. Mercer Pharmacy students, however, may be required to complete part of their advanced pharmacy practice experiences at other locations based on site availability. A complete list of sites is available in the Experiential Education Office. Site availability is subject to change.

Pharmacy students can also consider participating in one of the following unique advanced pharmacy practice experience programs: Advanced Clinical Track (ACT), Global Medical Missions, Indian Health Service (IHS), or International Pharmacy. A list of the current sites utilized for these programs is available in the Experiential Education Office.

**Advanced Clinical Track (ACT) Program**

The goal of the Advanced Clinical Track (ACT) Program is to provide a challenging combination of advanced pharmacy practice experiences (APPEs) that will aid in preparing students who plan on completing postgraduate residency training. Students who participate in the program will have the opportunity to have a more intensive APPE schedule, one-on-one faculty mentoring, and research experience that will focus on advancing fourth year students as future clinicians and clinical researchers. Current practice sites for the ACT Program are available on the COP website.

**Indian Health Service Program**

Pharmacy students may elect to complete a five-week ambulatory medicine practice experience with the Indian Health Service (IHS). Students will be involved in patient counseling; calculation of individualized drug doses for clinic and hospital patients; management of stabilized chronic disease patients by drug therapy protocols; and work as members of the healthcare team with IHS pharmacists, physicians, and nurses. Current practice sites are available on the COP website.

**International Pharmacy Program**

This program is designed to provide an elective five-week pharmacy practice experience in one of the approved foreign pharmacy sites. Pharmacy students will study the health care system of the host country to determine the differences in pharmacy practice, governmental influences, and education, as compared to the United States. These objectives also allow a student to gain personal experience and growth from living and practicing in another country, as well as insight into the health care issues and problems abroad. Assignment to an international pharmacy practice experience is competitive. Current practice sites are available on the COP website.

**Global Medical Missions**

This pharmacy practice experience is designed to introduce the student to the practice of pharmacy within a medical missions-related setting. Through this experience, the student will participate in pharmacy-related activities as a means for global outreach, service, and personal growth. Current practice sites are available on the COP website.

**APPE Courses/Rotations**

**PHA 650. Pharmacotherapy Case Conference** (1 hour)

This course is designed to incorporate the concepts and information from the Pharmacotherapy Disease State Modules, General Principles of Pharmacotherapy, and Practice of Pharmacy courses in a case study-based format. Didactic lectures with case examples will be emphasized. The students will be working in small group activities to evaluate medical therapy management in patients with a variety of disease states that the
student most likely encountered during their advanced pharmacy practice experiences (APPEs).

**PHA 602. Anticoagulation** (5 hours)
This experience is designed to give the student the opportunity to provide patient care services related to the use of various anticoagulation therapies in the inpatient setting. During this experience, the student will develop a pharmacotherapeutic care plan for patients receiving anticoagulant therapies, develop the skills necessary to provide monitoring and counseling for patients receiving anticoagulation therapies, and learn to participate in a multidisciplinary healthcare team.

**PHA 612. Transplant Pharmacy** (5 hours)
This experience is designed to give the student the opportunity to provide patient care services related to the use of various immunosuppressive therapies in the inpatient setting. During this experience, the student will develop a pharmacotherapeutic care plan for patients receiving immunosuppressive therapies, develop the skills necessary to provide monitoring and counseling for patients receiving immunosuppressive therapies, and learn to participate in a multidisciplinary healthcare team.

**PHA 618. Geriatrics-Continuous Care** (5 hours)
This practice experience is designed to provide the student with an in-depth experience in the provision of pharmaceutical care to older ambulatory adults.

**PHA 669. Pain Management/Palliative Care** (5 hours)
This practice experience will enable the student to develop proficiency in the knowledge of pain management and other targeted symptoms commonly seen during end-of-life situations.

**PHA 670. Medicine** (5 hours)
This required practice experience is designed to give the student a basic understanding of disease states encountered in internal medicine. This course will stress the application of therapeutics in patient care and require the student to develop skills in taking medication histories, monitoring patients, providing drug information, and patient education. This pharmacy practice experience is also designed to expose the student to the team concept of health care.

**PHA 671. Cardiology** (5 hours)
A practice experience designed to enable the student to acquire skills in the knowledge regarding basic principles of specific cardiovascular disorders, their treatment and care.

**PHA 672. Critical Care** (5 hours)
This hospital-based experience is designed to enable the student to acquire skills and knowledge regarding basic principles of specific critical care disease states and their treatment.

**PHA 673. Inpatient Geriatrics** (5 hours)
This practice experience is designed to give the student a basic understanding of disease states encountered in geriatric internal medicine. This course will stress the application of therapeutics in patient care and require the student to develop skills in taking medication histories, monitoring patients, providing drug information, and patient education. This pharmacy practice experience is also designed to expose the student to the team concept of health care.

**PHA 674. Hematology/Oncology** (5 hours)
This experience will enable the student to develop proficiency in the knowledge of neoplastic disease and rational therapy with oncological agents.
PHA 675. Infectious Diseases (5 hours)
This practice experience is designed to enable the student to acquire skills and knowledge regarding basic pharmacotherapy of specific infectious diseases.

PHA 676. Neonatology (5 hours)
This hospital-based practice experience is designed to enable the student to acquire proficiency and knowledge regarding basic principles of drug therapy in neonates.

PHA 677. Pediatrics (5 hours)
This practice experience is designed to enable the student to acquire skills and knowledge regarding basic principles of pharmacotherapy for common childhood diseases.

PHA 678. Psychiatry (5 hours)
This pharmacy practice experience is designed to give the student in-depth exposure to the area of mental health. The student will work with other members of the health care team to monitor drug therapy of patients with psychiatric diseases or drug abuse problems.

PHA 679. Surgery (5 hours)
This hospital-based experience is designed to enable the student to acquire proficiency in the basic principles of surgery and drugs used in surgical procedures.

PHA 680. Ambulatory Care (5 hours)
This required practice experience will provide the student with the necessary assessment skills to implement and monitor cost effective drug therapy for safety and efficacy in the primary care and/or specialty clinic patient care environment.

PHA 681. Advanced Community (5 hours)
This experience is designed to expose the student to a variety of patient-oriented services in community pharmacy practice and engage the student in service activities that will meet a community need, foster long-term civic and professional responsibility, and develop a sense of caring for others. These services may include: (1) patient counseling on appropriate drug use, home diagnostic test kits, and durable medical equipment; (2) monitoring drug therapy for safety and efficacy; (3) providing drug information to health care professionals and preceptors; (4) participating in health screenings and immunization clinics; and (5) providing education to the community through health fairs. This experience is also designed to give the student further experience in documenting pharmaceutical care interventions in community pharmacy practice.

PHA 684. General Clinical (5 hours)
This practice experience will expose the student to the broad-based daily duties often required of a clinical pharmacy coordinator in a hospital. The student will gain experience in at least four of the following six areas: Drug Information, Drug Usage Evaluation, Quality Assurance, Formulary Management, Pharmacokinetics, and Metabolic Support. Due to the nature of the above practice areas, the student will also gain experience in general internal medicine.

PHA 687. Home Health Care (5 hours)
This practice experience specializes in home infusion therapy. The student will gain experience working with pharmacists and nurses to care for the home patient. The student will be involved in preparation and monitoring of parenteral and enteral nutrition, antibiotics, cancer chemotherapy, specialty compounded drugs, and home health aides.

PHA 691. Nutritional Support (5 hours)
This practice experience is designed to provide the student with the opportunity to gain knowledge, skills, and practical experience in basic nutritional principles, nutritional
assessment, and management of the patient requiring enteral and/or total parenteral nutrition.

**PHA 692. Pharmacokinetics**
(5 hours)
This practice experience is designed to give the student hands-on experience in the functioning of an established clinical pharmacokinetics practice and information on methods for establishing such a service. The student will assess the utility of population averages in predicting drug concentration and dosages as well as learn to base therapeutic recommendation on measured drug concentration. This clinical application learning experience is directed toward monitoring drug therapy based on patient response rather than the mere manipulation of numbers. Expertise in calculations is expected from previous coursework. The student may also have the opportunity to be involved in evaluating and monitoring patients for pharmacokinetic research.

**PHA 698. Emergency Medicine**
(5 hours)
This practice experience is designed to give the student exposure to managing and monitoring emergency department patients.

**PHA 699. Advanced Institutional**
(5 hours)
This experience is designed to expose the student to broad-based daily duties often required of an institutional-based pharmacist including but not limited to dispensatory functions of a pharmacist in the hospital setting, medication reconciliation, and participation within a multidisciplinary healthcare team.

**Elective APPE Courses/Rotations**

**PHA 603. Compounding**
(5 hours)
This practice experience is designed to give the student a general understanding of the rationale for and the various techniques used in the extemporaneous compounding of pharmaceutical products.

**PHA 604. Medication Reconciliation**
(5 hours)
Medication reconciliation is the process of comparing a patient's medication orders to all of the medications that the patient has been taking. This practice experience is designed to give the student an understanding of the importance of medication reconciliation across all healthcare settings. Through this experience, the student will develop skills necessary to participate in and provide leadership for the medication reconciliation process, enhance written and verbal communication skills, and learn to participate within a multidisciplinary healthcare team.

**PHA 605. Pharmacy Informatics and Technology**
(5 hours)
This practice experience is designed to introduce the student to the use of healthcare information technology as a means to improve medication use, enhance patient safety, and advance patient care. Through this experience, students will gain insight into the important role pharmacists play in integrating medication use with various levels of technology.

**PHA 606. Regulatory Pharmacy**
(5 hours)
This practice experience will give the student a general understanding of the duties and responsibilities of a regulatory agency within the profession of pharmacy.

**PHA 610. Global Medical Missions**
(5 hours)
This practice experience will introduce the student to the practice of pharmacy within a medical missions-related setting. Through this experience, the student will participate in pharmacy-related activities as a means for global outreach, service, and personal growth.
PHA 613. Community Pharmacy Healthcare  
(5 hours)  
This experience is designed to give the student the opportunity to provide patient care services to diverse patient populations who seek treatment for acute medical care in the community pharmacy healthcare setting. During this experience, the student, as a member of an interdisciplinary team, will work alongside clinic nurse practitioners and pharmacists to develop the skills necessary to assess patients, provide pharmacy care in the acute community pharmacy clinic healthcare setting, work with a limited prescription formulary, implement and monitor cost effective drug therapy for safety, efficacy and compliance in the retail health care patient care environment. Students will spend approximately 50-75% of the experience in the community pharmacy healthcare clinic setting and 25-50% in the retail pharmacy department.

PHA 619. Transitions of Care  
(5 hours)  
This experience is designed to expose the student to the importance of the pharmacists’ role in the transition of care of a patient in both the inpatient and outpatient setting. This practice experience is designed to give the student an understanding of the importance of medication reconciliation, direct patient care, and ambulatory follow-up across all settings. Through this experience, the student will develop skills necessary to participate in and provide leadership for the medication reconciliation process, enhance written and verbal communication skills, and learn to participate within a multidisciplinary healthcare team.

PHA 649. Managed Care Pharmacy  
(5 hours)  
This experience is designed to provide the student with the general knowledge and a high level of exposure to a variety of activities conducted by managed care organizations (MCOs). MCOs manage healthcare services in a manner that is designed to effectively meet the needs of its members while incorporating clinical and economic factors.

PHA 651. Leadership in Pharmacy Management  
(5 hours)  
This experience exposes the students to the duties and responsibilities associated with upper-management executives within a pharmacy corporation or business entity. This experience is designed for students interested in pursuing a pharmacy career in upper-management and enhancing their leadership skills. The student will interact with executives in both clinical and business aspects of a company or healthcare system. This experience is specifically designed to give the student experience in practice issues, employee management, human resource services, recruiting, staffing and employee development needs, policy and advocacy, public relations, and in understanding the importance of professionalism and operational standards. Preference given to students enrolled in the Pharm.D./MBA program.

PHA 652. Medication Safety  
(5 hours)  
This practice experience is designed to expose the student to the duties and responsibilities associated with the recognition, prevention and reporting of medication errors. This APPE is designed to provide students with both direct and indirect patient care. Students will work to provide improved medication safety throughout the health care facility.

PHA 653. Obstetrics/Gynecology  
(5 hours)  
This practice experience is designed to expose students to the duties and responsibilities of a pharmacist practicing on a high risk perinatal and labor/delivery service.

PHA 660. Medication Therapy Management  
(5 hours)  
This course will be an experience-based rotation to help the student become an active participant in the management and provision of a managed care Medication Therapy Management (MTM) program. Emphasis will be placed on learning basic MTM principles while the student learns how to provide these services to patients.
PHA 662. Industrial Pharmacy Medical and Professional Services
This practice experience is specifically designed to give the student experience in conducting medical and professional service activities and is designed for those students who believe they may want to pursue a career in this area.

PHA 665. United States Public Health Service Centers for Disease Control and Prevention Drug Service
This experience will give the student a general understanding of public health issues and the many career opportunities available for pharmacists in the USPHS, specifically the Drug Service Division of the CDC.

PHA 666. The Agency for Toxic Substances and Disease Register (ATSDR) Division of Toxicology
During this experience, the student will be introduced to ATSDR, a public health agency, whose mission is to prevent or mitigate adverse human health effects and diminished quality of life resulting from exposure to hazardous substances in the environment. The experience will also provide the student with a comprehensive overview of the impact and significance of toxicology and risk assessment principles and practices and how they influence the agency program areas and products.

PHA 668. Pharmacy Association Management
This experience is designed to broaden the student's knowledge and understanding of Pharmacy Association Management. It is structured to provide experiences in national and state practice issues, education, member services, student development, policy and advocacy, and public relations. This experience can be completed at one of several sites.

PHA 682. Academic Administration
This practice experience is designed to stimulate the interest of pharmacy students in academia and provide the student with an understanding of the function and process of the academy. Through interviews with faculty, readings in the literature, participation in academic and administrative meetings, development of teaching materials with pharmacy faculty chosen as preceptors in the students’ area of interest, the exploration of teaching methodologies and several “hands on” projects, the student is better able to evaluate the possibility of a career in academia as well as assume a position in academia. Students interested in participating in the Academic Administration practice experience must have a GPA of 3.0 or better.

PHA 683. Drug Information
This practice experience will expose the student to various drug information activities such as: researching drug information questions, developing patient education materials and preparing pharmacy newsletters. Students may utilize Internet resources, abstracting services, professional journals, online bulletin boards, subscription disk, online information retrieval services, and textbooks during this experience to enhance their verbal and written communication skills.

PHA 685. Geriatrics–Long Term Care
The practice experience in Geriatrics is designed to provide the student with an in-depth experience in the provision of pharmaceutical care to older patients and those requiring long term care services. The student will also be exposed to additional aspects of consultant pharmacy practice for institutionalized long term care and subacute patients.

PHA 686. Health Outcomes Management
This practice experience is designed to provide the student with a basic understanding of health outcomes (clinical, economic, humanistic) focusing on pharmacoeconomics and
health care quality assessment. Didactic and practical experience in these core areas will expose the student to a variety of competencies utilized in a health outcomes research and consulting firm. The practice environment involves working directly with a number of managed care organizations, pharmaceutical manufacturers, pharmaceutical providers, pharmacy benefit managers and various other health care providers. The student will be exposed to and/or directly involved with the many steps in conducting quality focused, outcomes-based research—from proposal development to analysis and manuscript preparation.

**PHA 689. International Pharmacy** (5 hours)
This practice experience is designed to broaden the student's knowledge about health care, pharmacy practice, and education specifically in another health care system. The students will spend five weeks in one of the approved sites for the international program. This practice experience will vary according to the specialty (hospital, community, industry, or government). Assignment is competitive.

**PHA 690. Nuclear Pharmacy** (5 hours)
This experience introduces the student to the practice of Nuclear Pharmacy and Nuclear Medicine. The nuclear pharmacy experience will concentrate on pharmaceutical care and radiopharmaceutical compounding, quality assurance, health physics and regulatory compliance. This experience will offer the student the opportunity to communicate with the nuclear medicine personnel and participate in the clinical use of diagnostic and therapeutic radiopharmaceuticals. The student will also gain experience in the area of health physics as it is practiced in the nuclear pharmacy and hospital.

**PHA 693. Poison Control** (5 hours)
This practice experience will allow the student to gain practical experience in the regional Poison Control Center (PCC) at Grady Memorial Hospital. The student will respond to questions on intentional and accidental poisonings of drugs, exposures to chemicals, and snake/insect bites from all over the Southeastern United States. The student will recommend antidotes, treatments, and referrals under the supervision of the PCC staff. The clinical experience also consists of weekly work units which concentrate on a particular area of interest related to toxicology and/or poisoning.

**PHA 694. Prescription Benefit Management** (5 hours)
This practice experience is designed to give the student general knowledge and a high level of exposure to a variety of activities conducted by a Prescription Benefit Manager. A Prescription Benefit Manager is responsible for managing the drug benefits for a health care plan. Specific activities include Formulary Management and Drug Utilization Review activities.

**PHA 695. Advanced Psychiatry** (5 hours)
This practice experience is designed to expose the student to a focused area of psychiatry in the inpatient or outpatient environment and to develop their skills in conducting standardized evaluations of psychiatric patients using clinical rating scales.

**PHA 696. Research** (5 hours)
The research experience will provide the student with the opportunity to participate in an ongoing research project and develop skills necessary for pursuit of graduate education, fellowship, or a research-oriented career.

**PHA 697. Substance Abuse** (5 hours)
This experience is designed to expose the student to aspects of drug and alcohol abuse and the treatment most often used in a clinical setting. This experience will enable the
student to learn more about the diagnosis, complications, and the management of addictive disease with drug therapy in today’s health care environment.

**Focus Areas Leading to Certificates of Achievement**

The College of Pharmacy offers several focus areas that enhance the generalist Doctor of Pharmacy degree. Students pursuing these focus areas receive a certificate of achievement upon completion of didactic and experiential course work. These certificates of achievement may allow for practice in specialized areas.

Pharmacy-based Immunization Delivery is a focus area required of all students and is achieved through successful completion of the American Pharmacists Association (APhA) interactive educational program. This program is a component of Introductory Pharmacy Practice Experiences II (PHA 382), a required course in the Doctor of Pharmacy curriculum. Students receive a certificate of achievement awarded by APhA.

Medication Therapy Management is a focused area in which requirements include completion of the American Pharmacists Association (APhA) training program, a component of the Introductory Pharmacy Practice Experience V (PHA 585). Students receive a certificate of achievement awarded by APhA.

Academic Pharmacy requirements include successful completion of the Introduction to Teaching (PHA 509) elective and the APPE titled Academic Administration (PHA 682) in the fourth professional year.

Community Pharmacy Ownership requirements include successful completion of the Community Pharmacy Ownership (PHA 505) elective and the APPE titled Advanced Community (PHA 681) in the fourth professional year. Students receive experiential training in the distributive aspects of community pharmacy as well as involvement in the application of pharmaceutical care in the community practice setting.

Contemporary Compounding requirements include successful completion of the Contemporary Compounding (PHA 529) elective and the APPE titled Compounding (PHA 603) or an Advanced Community APPE (PHA 681) with an emphasis on compounding in the fourth professional year.

Diabetes Care requirements include successful completion of the following three items: The Diabetes Care (PHA 569) elective, an ambulatory care APPE or an advanced community APPE at a selected site with special emphasis in diabetes care, and a diabetes care practicum taken at the end of the fourth professional year.

Geriatric Pharmacy Practice requirements include successful completion of the Geriatric Pharmacy (PHA 564) elective and either a geriatrics-long term care APPE (PHA 685) or geriatrics-continuous care APPE (PHA 618) in the fourth professional year.

Leadership in Pharmacy requirements include successful completion of the Leadership in Pharmacy (PHA 578) elective and the APPE titled Leadership in Pharmacy Management (PHA 651) in the fourth professional year.

Managed Care Pharmacy requirements include successful completion of the Managed Care Pharmacy (PHA 582) elective and the APPE titles Managed Care Pharmacy (PHA 649) in the fourth professional year.

**Requirements for Internship and Licensure**

All Doctor of Pharmacy students are required to obtain a Georgia internship license after enrollment in the Doctor of Pharmacy Program and prior to participating in any on-site pharmacy practice experience. Intern license information is available on the Georgia Board of Pharmacy website: http://gbp.georgia.gov. Proof of licensure must be submitted as part of course requirements.

Students who plan to practice as pharmacy interns in states other than Georgia should consult their state’s board of pharmacy for information on pharmacy intern licensure in