PHARMACY (PHM)

PHM 507: Found of Human Body & Diseases I. (3.00 credit hours)
This foundational course is the first in a series designed to develop an understanding of physiology and pathophysiology concepts of diseases, including relevant microbiological and immunological concepts pertaining to each organ system. Students will learn to differentiate between normal physiologic variation and disease states. A blended approach (lecture, small group discussion, multimedia) is used for presentation of the material.
Prerequisite(s): Admission to the professional Pharmacy program

PHM 508: Found of Human Body & Diseases II. (3.00 credit hours)
This foundational course is the second in a series designed to develop an understanding of physiology and pathophysiology concepts of diseases, including relevant microbiological and immunological concepts pertaining to each organ system.Students will learn to differentiate between normal physiologic variation and disease states. A blended approach (lecture, small group discussion, multimedia) is used for presentation of the material.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 509: Found of Human Body & Diseases III. (2.00 credit hours)
This foundational course is the third in a series designed to develop an understanding of physiology and pathophysiology concepts of diseases, including relevant microbiological and immunological concepts pertaining to each organ system. Students will learn to differentiate between normal physiologic variation and disease states. A blended approach (lecture, small group discussion, multimedia) is used for presentation of the material.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 512: Patient Assessment Lab. (2.00 credit hours)
This foundational course is designed to introduce the art of physical examination as a bridge between anatomy, pathology, and pathophysiology concepts with future therapeutic decision making. Students will be familiarized with the process of information gathering of symptoms, signs, nonverbal communication skills, medical history, verbal techniques of communication and empathy. Basic techniques on how to conduct a physical exam from head to toe and the use of the stethoscope, otoscope, sphygmomanometer, and glucometer will be introduced.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 520: Pharmaceutical Sciences I. (3.00 credit hours)
This foundational course is the first in a series designed to develop an understanding of the science behind drug dosage forms, delivery and compounding preparation. Materials covered include the selected properties of drug substances that have an impact on the delivery of drugs to the human body, the dosage forms available for drug administration, and the therapeutic effect with respect to physical and chemical properties of drug in solution dispersion and solid state. The course also focuses on the theory, technology, formulation, evaluation and dispensing of dosage forms and delivery systems.
Prerequisite(s): Admission to the professional Pharmacy program

PHM 521: Pharmaceutical Sciences II. (3.50 credit hours)
This course is designed to emphasize mathematical concepts used in the practice of pharmacy for preparing and dispensing medications to a diverse patient population. Student pharmacists will use critical thinking and quantitative reasoning skills to compute the correct dose for a drug for both non-sterile and parenteral formulations. Student pharmacists will also explore patient specific parameters that influence the dosing regimen.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 522: Pharmaceutical Sciences III. (4.00 credit hours)
This foundational course is the third in a series designed to develop an understanding of the science behind drug dosage forms, delivery and compounding preparation. Materials covered include the selected properties of drug substances that have an impact on the delivery of drugs to the human body, the dosage forms available for drug administration, and the therapeutic effect with respect to physical and chemical properties of drug in solution. This course includes compounding laboratory components to enhance development of knowledge and skills.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 523: Basic Pharmacokinetics. (3.50 credit hours)
Pharmacokinetics is the study of drug movement in the body, sometimes defined as what the body does to a drug. This course is designed to introduce the basic principles and concepts of pharmacokinetics such as drug absorption, distribution, metabolism and excretion, as well as pharmacokinetic parameters including rate constant, half-life, steady state concentration, clearance, and volume distribution. Factors that influence the pharmacokinetics of drugs including formulation, physicochemical properties, physiological and pathological conditions are discussed. Students learn to use mathematical equations to describe the pharmacokinetic process of drugs and apply them to dosage regimen determinations. This course will also discuss the correlation of pharmacokinetics and pharmacodynamics which presents the effects of drug action at the receptor site. Upon successful completion of this course, students are expected to make rational drug therapy decisions such as determination of loading dose, maintenance dose and dosing intervals. The course prepares the student for Clinical Pharmacokinetics.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 532: Pharmaceutical Biochemistry. (2.00 credit hours)
Pharmaceutical Biochemistry as it relates to organ systems, disease, and pharmacotherapy is presented and reviewed. This includes the principles of the biomolecules and their metabolic pathways in physiological and pathophysiological states. Biochemical constructs (such as DNA, RNA, proteins, and basic signal transduction cascades) are discussed with respect to pharmaceutical treatment of human disease.
Prerequisite(s): Admission to the professional Pharmacy program

PHM 550: Pharmacy Skills Lab I -Immunization. (1.00 credit hours)
This course is the first of the Pharmacy Skills Lab series with a focus on pharmacy-based immunization delivery. Students will complete training and obtain American Pharmacists Association (APhA) certification in pharmacy-based vaccine immunization delivery.
Prerequisite(s): Admission to the professional Pharmacy program

PHM 553: Pharmacy Skills Lab II - Community. (2.00 credit hours)
This course discusses communication skills for interacting with patients, along with principles of entrepreneurship and management. Students will be introduced to communication strategies that optimize patient care and professional development. Students will practice basic skills utilized in community practice such as prescription fulfillment (e.g., receipt, preparation, labeling, dispensing, and distribution), pharmacy workflow and inventory management, use of pharmacy software, pharmacy abbreviations, prescription directions, and medication security with controlled substances.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 554: Pharmacy Skills Lab III - Hospital. (2.00 credit hours)
This course will familiarize students with healthcare systems with emphasis on the hospital setting. Contemporary healthcare issues and pharmacy practice in the United States and services within various medication use systems will be discussed. Through various assignments and activities, students will learn basic skills utilized in hospital medication use systems such as medication order fulfillment, use of Electronic Health Record (EHR) and automation equipment, medication safety, medication management, and the formulary system. This course will also discuss laws, regulations, accrediting bodies, and reimbursement as it relates to health-systems.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 560: Pharmacy Law. (2.00 credit hours)
This course provides an overview of current state and federal laws that substantially impact the competent delivery of Pharmacy care and services in community, interprofessional, ambulatory/clinic, inpatient, administrative, and other key practice settings. Standards, guidelines, rules, requirements, practices, and policies relating to maintaining/improving patient safety and consumer protection are also provided. The laws and professional practice standards of the state of California are emphasized.
Prerequisite(s): Admission to the professional Pharmacy program

PHM 561: Pharmacy Self-Care I. (2.00 credit hours)
As the first course of the Pharmaceutical Self-Care and Patient Advocacy series, this course provides an overview of self-care and covers principles of pharmaceutical self-care and the systematic approach for assisting patients who seek self-care products for the treatment and prevention of various self-treatable conditions. Students will learn to assist, educate, and empower patients to take responsibility for, and control of, their own health.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 581: Medical Spanish. (1.00 credit hours)
Effective communication is critical in delivering effective healthcare, and communication is most effective when both parties share a common language. This course will teach students the basics of Spanish as it applies to the medical field such as physical examinations, emergencies, common diseases within the Latino population, and specializations. By familiarizing students with conversational Spanish and medical Spanish, this course will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between healthcare providers and patients. By the end of the quarter, students should be able to communicate in simple Spanish using mainly the present tense, past regular tenses and phrasal verbs to express future intentions. They should be able to utilize specific medical terms learned in class. Students should be able to communicate with Spanish speaking patients by asking personal questions as well as questions about their health. They should be able to understand basic spoken Spanish as related to the course material. They should be able to counsel on a medication using short sentences.
Prerequisite(s): Pre-pharmacy curriculum and admission to program; Successful completion of prior quarter coursework or program permission

PHM 601: Int. Pharmacotherapeutics I. (5.00 credit hours)
This is the first course in the sequence of Integrated Pharmacotherapeutics that provides introductory knowledge of pharmacology, toxicology, medicinal chemistry, and clinical pharmacokinetics as related to the pharmaceutical sciences and foundations of pharmacotherapy. Drug receptors, signal transduction, ligand-molecular target interactions, drug discovery and development, functional groups and stereochemistry, structure-activity relationship (SAR) analyses, acid-base chemistry, ADME/Tox properties, biotransformation, therapeutic drug monitoring, and pharmacokinetic drug interactions will be covered in this course. Instruction consists of lectures, podcasts and pre-recordings, case studies, individual and group problem sets / projects / homework, workshops/recitations, and faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 602: Int. Pharmacotherapeutics II. (5.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series with an introduction to laboratory values and the clinical reasoning (Subjective, Objective, Assessment, and Plan, SOAP) format followed by a focus on the renal system, fluid / electrolytes, and obesity. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 603: Int. Pharmacotherapeutics III. (5.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the gastrointestinal, hepatic, nutrition support, and cardiovascular systems. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 604: Int. Pharmacotherapeutics IV. (6.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the cardiovascular and endocrine systems. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 605: Int. Pharmacotherapeutics V. (6.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the endocrine, pulmonary and rheumatology systems. Within the endocrine system, diabetes will be broadly discussed.
This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 606: Int. Pharmacotherapeutics VI. (5.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 610: Drug Info, Informatics & Lit Eval. (3.00 credit hours)
This course will provide a systematic approach to drug information and literature evaluation to formulate and implement appropriate drug therapy decisions. This includes effective searching, retrieval, evaluation and dissemination of electronic and print resources. Students will utilize skills learned in this course to effectively communicate and tailor drug information at the appropriate level for providers, other health professionals, caregivers, patients and the public. Emphasis will be placed on the interpretation and application of critical analytical skills to clinical questions. Additionally, this course will provide introductory knowledge on the state-of-the-art in pharmacy informatics and decision support systems needed to implement patient-centered care. Students will be able to define basic terminology used in health informatics and describe the health benefits and current constraints in using information and communication technology in health care. Practical exercises will provide the student with hands-on experience using numerous drug information sources and evaluation techniques.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 615: Adv Applications in Clin Prac I. (1.00 credit hours)
This course series is designed to develop knowledge and clinical reasoning skills required for provision of effective, safe, patient-centered, pharmacotherapy care. Instruction consists of: lectures, case studies, clinical problem sets, clinical exams, medical simulation, and group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 622: Advanced Compounding & Calculations. (2.00 credit hours)
This course is designed to focus on advanced mathematical calculations that have been used in sterile and non-sterile compounding pharmacy. This course will help students to improve their performance in solving mathematical-based complex questions. This required course also assists students to refresh their introductory knowledge about mathematics. They will employ their critical thinking and quantitative reasoning skills to compute the correct dose for a drug for both non-sterile and parenteral formulations in a reasonable time. Student pharmacists will also explore patient specific parameters that influence the dosing regimen. In addition, additional materials about compounding will be covered in this course.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 640: Pharmacy Skills Lab IV -PT Care Pro. (1.00 credit hours)
This course focuses on the Pharmacists' Patient Care Process (PPCP) with an emphasis on skills necessary for collection and assessment of patient-centered data including utilization of laboratory medicine in clinical and pharmaceutical care. The laboratory time is coordinated with initiation of the Clinical Medicine and Pharmacotherapeutics series. Students will be introduced to fundamental laboratory testing with emphasis placed on general interpretation of laboratory data, systematic use of laboratory tests in the evaluation and management of common and important clinical conditions and the application of laboratory test results to clinical and pharmaceutical care. Students have the opportunity to learn and practice basic skills utilized in delivery of contemporary drug therapy monitoring and point-of-care testing. Additionally, students will practice documenting in a SOAP note format (subjective, objective, assessment, and plan).
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 641: Pharmacy Skills Lab V - Cardio. (1.00 credit hours)
This course is the fifth of the Pharmacy Skills Lab series with a focus on the pharmacist's role in cardiovascular disease management. Students will learn essential skills to assess risk, promote cardiovascular disease prevention, and encourage patient adherence to therapy. Additionally, students will reinforce communication skills and pharmacy calculations. This program will teach students current guidelines and provide evidence based recommendations to support management of patients with dyslipidemia and hypertension to prevent cardiovascular disease.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 650: Pharmaceutical Self Care & P Ad II. (2.00 credit hours)
As the second course of the Pharmaceutical Self-Care and Patient Advocacy series, this course covers principles of pharmaceutical self-care and the systematic approach for assisting patients who seek self-care products for the treatment and prevention of various self-treatable conditions. This course will build on principles covered in Pharmacy Self-Care I, and further develop students' knowledge of self-care conditions and medications. Students will learn to assist, educate, and empower patients to take responsibility for, and control of, their own health. The body systems covered will integrate prior knowledge gained from the Foundations of Human Body and Diseases, Patient Assessment Lab, and Pharmacy Self-Care I courses.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 651: Pharmaceutical Self Care & P Ad III. (2.00 credit hours)
As the final course in the Pharmaceutical Self-Care and Patient Advocacy series, this course continues to cover principles of pharmaceutical self-care and the systematic approach for assisting patients who seek self-care products for the treatment and management of various self-treatable conditions. Students will learn to assist, educate, and empower patients to take responsibility for, and control of, their own health. Building on content from previous courses in the series, students will expand their knowledge in pharmaceutical self-care products and develop robust patient education skills. The body systems covered will integrate prior knowledge gained from the Foundations of Human Body and Diseases, Patient Assessment Lab, Pharmacy Self-Care I, and Pharmaceutical Self-Care and Patient Advocacy II courses.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 670: IPPE I. (4.00 credit hours)
This course provides introductory community pharmacy practice experience for student pharmacists of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for intern pharmacists, students will further develop, integrate, and apply knowledge from the first curriculum year. Student pharmacists will evaluate prescription and patient information, understand the basic steps for prescription data entry and processing, prescription preparation, actively observe elements of prescription consultations, and understand the basics of medication compliance and errors.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 681: Research & Scholarship. (2.00 credit hours)
This course provides an introduction to different steps of conducting research in the field of pharmacy and pharmaceutical sciences. This is the first exposure of student pharmacists to a course which fully focuses on research topics. Student Pharmacists select their research projects in groups. They will work together to collect evidence about previously published papers in different research fields. Student pharmacists will attend weekly meetings with the course coordinator to report about their progress. The final product will be presented in a PowerPoint format. All group members are involved in their presentation.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 701: Pharmacoeconomics. (2.00 credit hours)
This course is designed to introduce fundamental concepts in pharmacoeconomic analyses and outcomes research. Furthermore, this course discusses health economics with an emphasis on evaluating the costs and outcome effects of pharmaceutical products from various perspectives. Pharmacoeconomic analyses (e.g., cost-minimization, cost-benefit, cost-effectiveness and cost-utility) are presented, as well as decision modeling and various cost analyses. The macro/micro-economics of various aspects of pharmacy practice are discussed. Presentation of these content areas will provide a conceptual framework that identifies key areas in health resource allocation, principles of measuring and analyzing costs and health outcomes, and examine the techniques used to evaluate economic and health outcomes literature or data. Various lectures, individual assessments, and in-class activities are included to illustrate how pharmacoeconomic principles and techniques are utilized to elucidate the relationship between costs, consequences, and benefits of pharmaceutical interventions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 710: Int. Pharmacotherapeutics VII. (5.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the central nervous system and psychiatric disorders. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 712: Int. Pharmacotherapeutics IX. (6.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on infectious diseases. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 713: Int. Pharmacotherapeutics X. (5.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on infectious diseases and solid organ transplant. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 714: Int. Pharmacotherapeutics XI. (5.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on oncology. This course is designed to develop knowledge and clinical reasoning skills required for the provision of effective and safe patient-centered care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 715: Adv Applications in Clin Prac II. (2.00 credit hours)
This course series is designed to develop knowledge and clinical reasoning skills required for provision of effective, safe, patient-centered, pharmacotherapy care. Instruction consists of: lectures, case studies, clinical problem sets, clinical exams, medical simulation, and group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 716: Integrated Pharmacotherapeutic VIII. (3.00 credit hours)
Continuation of the Integrated Pharmacotherapeutics course series with a primary focus on the neurological conditions and toxicology. This course is designed to develop knowledge and clinical reasoning skills required for provision of effective and safe patient-centered, pharmacotherapy care. Instruction consists of lecture, case studies, clinical problem sets, recitations, and structured faculty-led group discussions.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 721: Behavioral & Social Science. (2.00 credit hours)
This course will examine social and behavioral influences on health-related behaviors and the dissemination of health information. Students will be introduced to a range of social, ethical, and cultural factors associated with professional practice. Upon successful completion of this course, students should develop greater behavioral and cultural sensitivity when interacting with patients from diverse populations.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 730: Pharmacy Skills Lab VI - Diabetes. (1.00 credit hours)
This course focuses on the pharmacists' role as the medication therapy expert on the diabetes health care team. Students will learn essential knowledge and skills needed to provide effective, evidence-based diabetes care. Students will obtain the American Pharmacists Association (APhA) certificate in The Pharmacist and Patient-Centered Diabetes Care and will receive comprehensive training in current diabetes standards of care to support management of patients with diabetes mellitus.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 731: Pharmacy Skills Lab VII -Med Therap. (1.00 credit hours)
This course is the seventh and final course in the Pharmacy Skills Lab series with a focus on medication therapy management (MTM). Student pharmacists will learn to perform all aspects of an MTM visit, use effective communication skills with both patients and other healthcare professionals, and describe strategies for implementing MTM services. Student pharmacists will also complete training and obtain the American Pharmacists Association (APhA) certification in MTM.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 740: Biotechnology, Pharm, Precision Med. (3.00 credit hours)
Precision medicine or personalized medicine is the integration of established clinical–pathological indexes with state-of-the-art molecular profiling to create diagnostic, prognostic, and therapeutic strategies precisely tailored to an individual patient's requirements. This introductory course will discuss the scientific principles of biotechnology, molecular biology and pharmacogenomics pertaining to precision medicine. Topics include bioinformatics, gene therapy, genotyping, molecular biomarkers, nanotechnology, recombinant protein and monoclonal antibody therapeutics and targeted therapy.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 760: Special Populations. (2.00 credit hours)
This course will focus on the pharmacists' role as the medication therapy management expert in special populations in pharmacy: travel health, geriatric, pediatric, and veterinary. Students will learn about epidemiology, etiology, clinical signs and symptoms, therapeutic management, and prevention of diseases in these special populations in order to provide effective, evidence-based pharmaceutical care. Students will complete the American Pharmacists Association (APhA) Pharmacist-Based Travel Health Services certificate training program in the course.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 765: Emerging Iss & Practice Read Exam. (4.00 credit hours)
This course is intended to assess the readiness of the students to enter the final year of the curriculum, prior to going to their APPE rotations. The course includes an extensive review of prior and current course materials. It also serves as a review for the NAPLEX.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 770: IPPE II (4weeks). (4.00 credit hours)
This course provides introductory hospital pharmacy practice experience for students of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for intern pharmacists, students will complete the development and ability to integrate and apply knowledge from the didactic curriculum to practice as a licensed pharmacist in the institutional pharmacy practice setting. The student pharmacist will evaluate prescription and patient information, basic steps of prescription, data entry, prescription preparation and labeling, observe prescription consultations, understand the basics of medication compliance and errors in an institutional pharmacy practice setting.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 780: Mental Health First Aid. (1.00 credit hours)
The Adult Mental Health First Aid course is a certification course designed to teach anyone how to recognize symptoms of mental health problems, offer and provide initial help and guide toward appropriate treatments and supportive help for a person who may be experiencing a mental health related crisis or problem. Topics covered in the course include anxiety, depression, psychosis, and addictions. This course does not teach people to be therapists. Students enrolled in the course will learn the ALGEE (Approach and assess for risk of suicide or harm, Listen nonjudgmentally, Give reassurance and information, Encourage appropriate professional help and Encourage self-help and other support strategies) Mental Health First Aid Action Plan and if presented with anyone experiencing a mental health crisis or problem be able to utilize the skills used in this course to recognize and assist them. The course helps the student develop these skills through active learning exercises throughout the course.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 781: Substances of Abuse & Addiction. (2.00 credit hours)
Students select from a list of approved electives. Each elective may be taken once per student. Electives include topics in the following: Drug development, infectious diseases, calculations, compounding, psychiatry, research, Spanish, statistical analysis, substance abuse, preventing burnout, residency readiness, and advanced cardiovascular life support (ACLS).
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 782: Research. (2.00 credit hours)
This course is designed to provide students with an opportunity for pharmaceutical science research. Students enrolled in this course will learn behavioral and molecular research laboratory techniques, utilizing Drosophila melanogaster as a model organism. This course is recommended for students who are highly interested in pharmaceutical science research. Prior mastery of research laboratory techniques is a plus but not a requirement.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 784: Transitions of Care. (2.00 credit hours)
Students select from a list of approved electives. Each elective may be taken once per student. Electives include topics in the following: Drug development, infectious diseases, calculations, compounding, psychiatry, research, Spanish, statistical analysis, substance abuse, preventing burnout, residency readiness, and advanced cardiovascular life support (ACLS).
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 785: Conversational Spanish. (2.00 credit hours)
Students select from a list of approved electives. Each elective may be taken once per student. Electives include topics in the following: Drug development, infectious diseases, calculations, compounding, psychiatry, research, Spanish, statistical analysis, substance abuse, preventing burnout, residency readiness, and advanced cardiovascular life support (ACLS).
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 786: Adv. Topics in Infectious Diseases. (2.00 credit hours)
Advanced Topics in Infectious Diseases will discuss topics in antimicrobial treatment of infectious diseases (ID) beyond those required in the pharmacy curriculum. The course will also re-emphasize core ID topics and practices for continued practice for student learning. Finally, the course will expose students to various aspects of practical infectious disease in pharmacy practice such as antimicrobial stewardship (ASP), formulary management, and journal club.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 788: Intro. to Drug Development & Eval. (2.00 credit hours)
This course introduces students to the basic principles of drug development and evaluation. Drug development is a process to bring a new drug or formulation to the market once a lead compound has been identified through the process of drug discovery. This process includes pre-clinical research including animal studies as well as formulation preparation and evaluation, filing application for investigational new drug for clinical studies, and application for new drug. The structure of this course includes two parts: didactic lectures (11 hours) and a laboratory component (22 hours). The students will be exposed to formulation development (design, preparation, and evaluation of dosage form), pre-clinical studies (animal pharmacokinetic and dynamic studies) and clinical trials (phase I, II, III, and IV). The regulation of new drug approval processes by FDA will also be discussed. The common research instruments for drug development, especially for dosage form evaluation, such as dissolution apparatus, ultraviolet–visible spectrophotometer, and high performance liquid chromatography (HPLC) will be demonstrated in the laboratory. The students will receive hands-on training and practice for these instruments.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 789: Pract Apps Stat & Research Design. (2.00 credit hours)
This course will explain the concepts and the math behind commonly used statistical tests, including ANOVA F, Student's t, Pearson's correlation, confidence intervals, and statistical power. PHM 789 expands on required coursework by heavily emphasizing the calculation of these statistics and how to apply them in various scenarios. This class will discuss the strengths and weaknesses of various research designs, with a focus on how to select, calculate, and interpret the most appropriate statistical test. Additionally, this course will provide guidance on writing a research protocol for review by an IRB (institutional review board). Recommended for students who intend to pursue careers in academia or research. Students must also receive a grade of B or higher in IPE 402C Evidence-Based Practice.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 790: Residency Readiness. (1.00 credit hours)
Residency Readiness is a course to help individuals learn more about pharmacy residencies. Through the course, they will gain valuable information including but not limited to the pharmacy residency application process, interviews, and life during residency.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 791: Advanced Compounding & Calculations. (2.00 credit hours)
Students select from a list of approved electives. Each elective may be taken once per student. Electives include topics in the following: Drug development, infectious diseases, calculations, compounding, psychiatry, research, Spanish, statistical analysis, substance abuse, preventing burnout, residency readiness, and advanced cardiovascular life support (ACLS).
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 792: Applications Research & Scholarship. (1.00 credit hours)
Students who would like to develop their Scholarship & Research skills further, take this course with individualized faculty mentor. This course requires students to perform a research/scholarly activity project under the supervision of the faculty mentor directly. The course has been designed to expose students to an advanced level of research. The results of the scholar activities will be published as scientific papers or poster presentations.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 793: Advanced Topics in Psychiatry. (2.00 credit hours)
Students select from a list of approved electives. Each elective may be taken once per student. Electives include topics in the following: Drug development, infectious diseases, calculations, compounding, psychiatry, research, Spanish, statistical analysis, substance abuse, preventing burnout, residency readiness, and advanced cardiovascular life support (ACLS).
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 794: Advance Cardiovascular Life Support. (2.00 credit hours)
Upon successful completion, this elective course allows the students to obtain the American Heart Association Advanced Cardiovascular Life Support (ACLS) certificate. A valid cardiopulmonary resuscitation certification is required.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 801: APPE: Community Pharmacy Practice. (6.00 credit hours)
This course provides advanced pharmacy practice experience for students of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for entry-level PharmD candidates, student pharmacists will complete the development and ability to integrate and apply knowledge from the didactic curriculum to practice as a licensed pharmacist in the community pharmacy practice setting.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 802: APPE: Health System Pharmacy. (6.00 credit hours)
This course provides advanced pharmacy practice experience in hospital or health system pharmacy practice settings, with emphasis on individualized patient care and hospital/health system-based practices. Students identify, evaluate, and resolve medication therapy related problems; assist with drug information, participate in interprofessional care and patient care rounds, monitor patients, identify opportunities for therapeutic interventions, and communicate with other healthcare professionals. Practical understanding of clinical pharmacy systems, sterile products preparation, formulary management, protocol application, dose adjustments, use of electronic medical records, medication safety and reconciliation, pharmacokinetic and hyper-alimentation consultations, and demonstration of understanding of pharmacy laws, standards, and hospital-based operational processes is expected.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 803: APPE: Inpatient/Acute Care Gen Med. (6.00 credit hours)
This course provides advanced pharmacy practice experience for students of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for intern pharmacists, students will complete the development and ability to integrate and apply knowledge from the didactic curriculum to practice as a licensed pharmacist in the general medicine pharmacy practice setting. The student pharmacist will gain experience in practice management, and interactions with other health care providers.
The students will develop an understanding of the pathophysiology, complications, pharmacotherapy and non-pharmacotherapy management in various patient populations encountered in the general medicine practice setting.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 804: APPE: Ambulatory Care Pharmacy. (6.00 credit hours)
This course provides advanced pharmacy practice experience for students of the College of Pharmacy. Under appropriate preceptor supervision and consistent with practice regulations for intern pharmacists, students will complete the development and ability to integrate and apply knowledge from the didactic curriculum to practice as a licensed pharmacist in the ambulatory care pharmacy practice setting. The student pharmacist will gain experience in practice management, and interactions with other health care providers.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 805: APPE: Elective Rotation I. (6.00 credit hours)
These experiential courses provide the opportunity for student pharmacists to select from a list of electives with a variety of non-patient care foci or an additional clinical specialty pharmacy practice experience. Student pharmacists under the supervision of an adjunct faculty or full time faculty member will gain experience in their chosen elective area. The student will continue to develop a philosophy of practice, an understanding of the role of the pharmacist as a member of the health care team, and gain knowledge and skills to manage resources and daily operations applicable to the specific elective rotation site.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 806: APPE: Elective Rotation II. (6.00 credit hours)
These experiential courses provide the opportunity for student pharmacists to select from a list of electives with a variety of non-patient care foci or an additional clinical specialty pharmacy practice experience. Student pharmacists under the supervision of an adjunct faculty or full time faculty member will gain experience in their chosen elective area. The student will continue to develop a philosophy of practice, an understanding of the role of the pharmacist as a member of the health care team, and gain knowledge and skills to manage resources and daily operations applicable to the specific elective rotation site.
Prerequisite(s): Successful completion of prior quarter coursework or program permission

PHM 865A: NAPLEX Capstone I. (0.25 credit hours)
This is the first course of a four-course series that is intended to prepare students to take the North American Pharmacist Licensure Examination (NAPLEX) upon graduation. This course includes an extensive review and update of prior and current pharmacy practice knowledge.

PHM 865B: NAPLEX Capstone II. (0.25 credit hours)
This is the second course of a four-course series that is intended to prepare students to take NAPLEX upon graduation. This course includes an extensive review and update of prior and current pharmacy practice knowledge.

PHM 865C: NAPLEX Capstone III. (0.25 credit hours)
This is the third course of a four-course series that is intended to prepare students to take NAPLEX upon graduation. This course includes an extensive review and update of prior and current pharmacy practice knowledge.

PHM 865D: NAPLEX Capstone IV. (2.00 credit hours)
This is the fourth course of a four-course series that is intended to prepare students to take NAPLEX upon graduation. This course includes an extensive review and update of prior and current pharmacy practice knowledge.