

# PHARMACY (PHAR)

## **PHAR 1. Creighton University Elective. 2 Credit Hours.**

College of Pharmacy elective credits earned at Creighton University School of Pharmacy that apply to the Pharmacy Degree at OUHSC. Special topics

**Course Type:** Lecture

## **PHAR 2. University of Utah Electives. 1-3 Credit Hours.**

College of Pharmacy elective credits earned at University of Utah School of Alcoholism and Other Drug Dependencies that apply to the Pharmacy Degree at OUHSC. Special Topics

**Course Type:** Lecture

## **PHAR 3. University of Florida Elective. 2-3 Credit Hours.**

May be repeated; maximum credit 6 hours. College of Pharmacy elective credits earned at University of Florida that apply to the Pharmacy Degree at OUHSC. Special topics

**Course Type:** Lecture

## **PHAR 4. University of Wyoming Elective. 1-3 Credit Hours.**

May be repeated; maximum credit 3 hours. College of Pharmacy elective credits earned at University of Wyoming that apply to the Pharmacy Degree at OUHSC. Special topics

**Course Type:** Lecture

## **PHAR 5. Notre Dame of Maryland University. 2 Credit Hours.**

College of Pharmacy elective credits earned at Notre Dame of Maryland University that apply to the Pharmacy Degree at OUHSC. Special topics

**Course Type:** Lecture

## **PHAR 3003. Interdisciplinary Leadership in Healthcare. 3 Credit Hours.**

Prerequisites: Admissions to OU Health Sciences Campus. Cross Listed: DH 3003; NURS 3003; AHS 3003 This course reviews cultural humility and interprofessional competence in health care. It provides the opportunity to learn how interprofessional health professionals can utilize cultural humility to address health disparities among an increasingly diverse population while providing the highest quality of care. (F, Sp, Su, Int III, IV) Course may not fulfil the Upper-Division General Education Req.

**Course Type:** Lecture

## **PHAR 4993. Pharmacy Capstone Seminar. 3 Credit Hours.**

Prerequisites: Successful completion of P-1 coursework and approval by the dean to be enrolled in the B.S. in Pharmacy Systems degree program. This seminar course focuses on the development of advanced analytical skills through the critical evaluation of scientific literature in the investigation of a pharmacy practice or pharmacy system issue, preparation of a scholarly paper, and delivery of an oral presentation of this work.

**Course Type:** Lecture

## **PHAR 7004. Adult Medicine I Practicum. 4 Credit Hours.**

May be repeated; maximum credit 16 hours. Supervised clinical practice experience involving the analysis of pharmacotherapeutic and pharmacokinetic applications, evaluation of drug utilization, and synthesis of rational drug regimens in the context of adult medicine.

**Course Type:** Clinical

## **PHAR 7010. Community Pharmacy Practicum. 4 Credit Hours.**

May be repeated; maximum credit 16 hours. Supervised clinical practice experience in community pharmacy with emphasis on the distributive and managerial aspects of pharmaceutical care.

**Course Type:** Clinical

## **PHAR 7012. History of Pharmacy. 2 Credit Hours.**

Background and development of pharmacy, the contribution of pharmacy to drug knowledge, and its evolution from ancient times to the present.

**Course Type:** Lecture

## **PHAR 7014. Adult Medicine II Practicum. 4 Credit Hours.**

May be repeated; maximum credit 16 hours. Continuation of PHAR 7004 Adult Medicine I.

**Course Type:** Clinical

## **PHAR 7020. Hospital Pharmacy Practicum. 4 Credit Hours.**

May be repeated; maximum credit 16 hours. Supervised clinical practice experience in hospital pharmacy with emphasis on the distributive and managerial aspects of pharmaceutical care.

**Course Type:** Clinical

## **PHAR 7024. Ambulatory Care Practicum. 4 Credit Hours.**

May be repeated; maximum credit 8 hours. Supervised clinical practice experience involving the analysis of Pharmacotherapeutic and Pharmacokinetic applications. Evaluation of drug utilization, and synthesis of rational drug regimens in the context of ambulatory care.

**Course Type:** Clinical

## **PHAR 7030. Ambulatory Care Practicum II. 4 Credit Hours.**

Prerequisites: Completion of all P1 through P3 year didactic course requirements. May be repeated; maximum credit 16 hours. Supervised clinical practice experience involving the analysis of Pharmacotherapeutics and Pharmacokinetic applications, evaluation of drug utilization, and synthesis of rational drug regimens in the context of ambulatory care. (Fall, Spring, & Summer IV)

**Course Type:** Practicum

## **PHAR 7031. Oral/Written Presentation Skills in the Social & Administrative Pharmaceutical Sciences. 1 Credit Hour.**

Prerequisites: Permission of the instructor May be repeated; maximum credit 2 hours. The course will provide training in the comprehensive and presentation of cutting-edge primary literature in the field of social & administrative pharmaceutical sciences, which include, but are not limited to applications in/of sociology, psychology, management, marketing, economics, finances, epidemiology, and public health: and at the same time in developing scientific literature evaluation and general writing skills.

**Course Type:** Lecture

## **PHAR 7034. Critical Care Practicum. 4 Credit Hours.**

May be repeated; maximum credit 4 hours. Supervised clinical practice experience involving the analysis of pharmacotherapeutic and pharmacokinetic applications, evaluation of drug utilization, and synthesis of rational drug regimens in the context of critical care.

**Course Type:** Clinical

## **PHAR 7044. Drug Information Practicum. 4 Credit Hours.**

May be repeated; maximum credit 16 hours. Supervised practice experience involving the efficient utilization, critical evaluation and application of drug literature in the clinical setting. The student will also gain experience in verbal and written communication skills by answering drug information questions.

**Course Type:** Clinical

## **PHAR 7054. Clinical Nutrition Practicum. 4 Credit Hours.**

May be repeated; maximum credit 4 hours. Supervised practice experience involving nutritional assessment, evaluation, and monitoring of patients requiring oral, enteral, and/or intravenous nutritional support.

**Course Type:** Clinical

**PHAR 7064. Pediatrics Practicum. 4 Credit Hours.**

May be repeated; maximum credit 4 hours. Supervised clinical practice experience involving the analysis of pharmacotherapeutic and pharmacokinetic applications, evaluation of drug utilization, and synthesis of rational drug regimens in the context of pediatrics.

**Course Type:** Clinical

**PHAR 7074. Pharmacokinetics Practicum. 4 Credit Hours.**

May be repeated; maximum credit 4 hours. Supervised practice in the collection, evaluation, and application of pharmacokinetic and pharmacodynamics data in the clinical setting.

**Course Type:** Clinical

**PHAR 7084. Psychiatry Practicum. 4 Credit Hours.**

May be repeated; maximum credit 4 hours. Supervised clinical practice experience involving the analysis of pharmacotherapeutic and pharmacokinetic applications, evaluations of drug utilization, and synthesis of rational drug regimens in the context of psychiatry.

**Course Type:** Clinical

**PHAR 7090. Research Practicum. 4 Credit Hours.**

Prerequisites: None May be repeated; maximum credit 8 hours. Supervised clinical research experience in areas such as the pharmacotherapeutic and pharmacokinetic applications, evaluation of drug utilization, or development of rational drug regimens under the direction of the student's Pharm.D. program advisor.

**Course Type:** Practicum

**PHAR 7094. Elective-Non Patient Care Practicum. 4 Credit Hours.**

Prerequisites: Completion of all P1 through P3 year didactic course requirements. May be repeated; maximum credit 8 hours. Elective pharmacy practice experience in a non-patient care setting for exploration of areas of professional interest. (Fall, Spring, & Summer IV)

**Course Type:** Practicum

**PHAR 7102. Alternative Medicine. 2 Credit Hours.**

Prerequisites: P-3 professional standing. An introduction to the different types of complementary and alternative medicine with an emphasis on their basic philosophies and procedures as compared to those of conventional medicine and pharmacy.

**Course Type:** Lecture

**PHAR 7104. Introductory Biochemistry. 4 Credit Hours.**

Prerequisites: None An introduction to biochemistry for students in the health related professions. The chemistry of biological materials (proteins, nucleic acids, lipids, and carbohydrates), enzymes, metabolism, nutrition, and selected topics of specific interest.

**Course Type:** Lecture

**PHAR 7112. Pharmaceutical Mathematics. 2 Credit Hours.**

Calculations applicable to the practice of pharmacy; prescription format and interpretation; metric and common systems of measure and conversions; dosages; density and specific gravity; percentages; ratio strength; milliequivalents and millimols; reduction and enlargement of formulas; dilution and concentration.

**Course Type:** Lecture

**PHAR 7122. Pharmacy Practice I. 2 Credit Hours.**

Prerequisites: P-1 professional standing. An introduction to pharmacy practice, including exposure to and participation in different types of practice and settings. This first course with direct instruction by experienced preceptors increases the student's awareness of the pharmacist's roles and responsibilities in health care delivery. The course will provide basis information regarding implementation of pharmaceutical care, pharmacy laws, pharmaceutical career information and knowledge of the components of drug delivery systems. PHAR 7122 is a required two credit hour professional course.

**Course Type:** Lecture

**PHAR 7124. Pharmacy Practice II. 4 Credit Hours.**

Prerequisites: P-1 professional standing. An introduction to pharmacy practice, including exposure to and participation in different types of practice and settings. This second course with direct instruction by experienced preceptors increases the student's awareness of the pharmacist's roles and responsibilities in health care delivery. The course will provide basic information regarding implementation of pharmaceutical care, pharmacy laws, pharmaceutical career information and knowledge of the components of drug delivery systems. PHAR 7124 is a required four credit hour professional course.

**Course Type:** Lecture

**PHAR 7133. Principles of Drug Action I. 3 Credit Hours.**

Prerequisites: Good standing as a P-1 Student Introduction to the chemical and biological principles involved in the development and use of drugs in evidenced-based medicine including the following topics: drug nomenclature; physicochemical properties of drugs; characteristics of natural drug products; principles of pharmacodynamics and pharmacokinetics; mechanisms of action of pharmacotherapeutic and chemotherapeutic agents and pharmacogenetics.

**Course Type:** Lecture

**PHAR 7141. Introduction to Mentoring. 1 Credit Hour.**

Prerequisites: None This year-long course explores the essential skills required to be an effective mentor and leader and provides guidance and practical experience on developing these skills. Upper division students are assigned a first year student and are charged with acting as their mentor.

**Course Type:** Lecture

**PHAR 7142. Leadership in Pharmacy. 2 Credit Hours.**

Prerequisites: None This course is designed to provide students a foundation in leadership while allowing each student the opportunity to engage in self discovery and reflection through a variety of "hands on" experiences. The course will utilize extensive classroom discussion, guest speakers and leadership projects in an attempt to develop student leadership skills.

**Course Type:** Lecture

**PHAR 7143. Pharmaceutical Biotechnology. 3 Credit Hours.**

Recent developments in the synthesis, structure, and function of biologically active peptides and their relationship to the treatment of disease in man.

**Course Type:** Lecture

**PHAR 7152. Drug Study Design. 2 Credit Hours.**

Design and conduct of clinical drug trials: protocol preparation; randomization; sample size; trial monitoring; ethical issues; and data analysis.

**Course Type:** Lecture

**PHAR 7153. Pharmaceutical Immunology. 3 Credit Hours.**

Principles of Immunology as applied to drug development and utilization with emphasis on immunotherapeutic agents.

**Course Type:** Lecture

**PHAR 7163. Biostatistics. 3 Credit Hours.**

Prerequisites: Successful completion of the P-2 professional curriculum and good standing as a P-3 student Theory and application of common statistical tests.

**Course Type:** Lecture

**PHAR 7212. Pharmacy Practice III. 2 Credit Hours.**

Prerequisites: Successful completion of the P-1 professional curriculum and good standing as a P-2 student. The pharmacy practice course provides professional students with direct instruction by experienced pharmacy practitioners in their practice sites in parallel with didactic instruction about professional practice issue to increase the student's awareness of the pharmacist's role and responsibilities in health care delivery.

**Course Type:** Lecture

**PHAR 7222. Pharmacy Practice IV. 2 Credit Hours.**

Prerequisites: P-1 Year Second practicum course with direct instruction by an experienced preceptor to increase the student's awareness of the pharmacist's roles and responsibilities in health care delivery.

**Course Type:** Lecture

**PHAR 7242. Leadership in Pharmacy II. 2 Credit Hours.**

Prerequisites: Leadership in Pharmacy I This course is designed to build upon the principles presented in the Leadership in Pharmacy I course. This course is designed to provide students a foundation in team building, leading a team, advocacy and organizational dynamics while allowing each student the opportunity to engage in leadership projects through a variety of "hands on" experiences.

**Course Type:** Lecture

**PHAR 7312. Pharmaceutical Compounding. 2 Credit Hours.**

Prerequisites: Pharmacy Student Boot Camp sponsored by Professional Compounding Center of America This course is designed to reinforce and develop concepts regarding use of pharmaceutical compounding in delivering pharmaceutical care.

**Course Type:** Lecture

**PHAR 7313. Pharmacy Practice V. 0-3 Credit Hours.**

Prerequisites: Successful completion of the P-2 professional curriculum and good standing as a P-3 student. May be repeated; maximum credit 3 hours. Year-long Course This course provides professional students with direct instruction by experienced pharmacy practitioners in their practice sites in parallel with didactic instruction and simulated applications of knowledge and skills in community and institutional pharmacy practice with a focus on integration of patient care skills into contemporary practice. (Summer, Fall P-3)

**Course Type:** Lecture

**PHAR 7321. Drug and Alcohol Addiction Education in the Health Professions. 1 Credit Hour.**

This course is designed for the advanced pharmacy student to provide them with knowledge and make them aware of the risks of alcohol and drug addiction to their professional careers, to their families, and or to their friends. Prior enrollment in the University of Utah School on Alcoholism and Drug Dependency may be advantageous.

**Course Type:** Lecture

**PHAR 7323. Pharmacy Practice VI. 3 Credit Hours.**

Prerequisites: Good standing as a P-3 student This course provides professional student with direct instruction by experienced pharmacy practitioners in their practice sites in parallel with didactic instruction and simulated applications of knowledge and skills in community and institutional pharmacy practice with a focus on integration of patient care skills into contemporary practice

**Course Type:** Lecture

**PHAR 7324. Radionuclide Methodology. 4 Credit Hours.**

Prerequisites: P-2 or P-3 Professional Standing or with Permission from Instructor Cross Listed: PHSC 5324 Principles of Radioactive Tracer Methodology used in health research. Basic radiation physics, radionuclide calculations, interactions of radiation with matter, methods of radiation detection, and determination of experimental design; radiological safety and application of radionuclides to research.

**Course Type:** Lecture

**PHAR 7334. Nuclear Pharmacy. 4 Credit Hours.**

Prerequisites: P-2 or P-3 Professional Standing or with Permission from Instructor Cross Listed: PHSC 5334 Introduction to the field of Nuclear Pharmacy. Topics include radiopharmaceutical quality control, stability and labeling techniques. Laboratory included.

**Course Type:** Lecture

**PHAR 7411. Pediatric Pharmacy Exploration. 1 Credit Hour.**

Prerequisites: Successful completion of P1 year coursework. This course will introduce students to foundational topics essential for caring for pediatric patients in the community and acute care settings. In addition, it will provide students with exposure to the role of the pharmacist in caring for pediatric patients and expose them to potential career paths in pediatrics. (F II, III)

**Course Type:** Lecture

**PHAR 7412. Current Therapeutic Agents. 2 Credit Hours.**

May be repeated; maximum credit 2 hours. Current developments in Pharmacology from a clinical standpoint.

**Course Type:** Lecture

**PHAR 7422. Principles of Drug Action II. 2 Credit Hours.**

Prerequisites: Good academic standing as a P-1 student. Continuation of PHAR 7133 illustrating the chemical and biological principles of drug action with the autocooids as well as drugs acting on the autonomic and central nervous systems.

**Course Type:** Lecture

**PHAR 7423. Anti-Infective Therapy. 3 Credit Hours.**

Basic Pharmacological principles to the development of optimal antimicrobial drug therapy and in-depth discussion of antimicrobial agents commonly employed in clinical practice. Students will develop skills in assessing rational and appropriate therapy as opposed to inappropriate therapy.

**Course Type:** Lecture

**PHAR 7432. Summer Symposium of Leadership. 2 Credit Hours.**

Prerequisites: None This course designed to provide students a foundation in leadership by allowing each student the opportunity to improve self-awareness, individual development, effective teamwork, change in organizations, life harmony, and relationships, Interactive activities and assessment tools will aid in analysis of strengths, personality styles, group dynamics, organizational behavior, mindfulness, and networking.

**Course Type:** Lecture

**PHAR 7456. Physiology. 6 Credit Hours.**

Fundamental systematic approach to understanding of normal human structure and functions. Circulation, digestion, endocrine and nervous control, metabolism, muscle action, and respiration are emphasized.

**Course Type:** Lecture

**PHAR 7461. Leadership in Action I. 1 Credit Hour.**

Prerequisites: PHAR 7142, PHAR 7742, PHAR 7141, Concurrent enrollment in PHAR 7703 Yearlong Course This course is designed to provide students a forum for practicing concepts learned in Leadership in Pharmacy I and II as well as building on those concepts in order to successfully lead a team through change. The course will utilize extensive case studies and classroom discussion in an attempt to develop student leadership skills.

**Course Type:** Lecture

**PHAR 7471. Leadership in Action II. 1 Credit Hour.**

Prerequisites: PHAR 7142, PHAR 7742, PHAR 7141, PHAR 7461, PHAR 7703 Year-long course This course is a continuation of Leadership in Action I with a focus on leading people through change. Students will be required to present a Capstone project incorporating concepts learned throughout the course series. Literature review will be an integral part of this course. The course will utilize extensive advanced case studies and classroom discussion in an attempt to further develop student leadership skills in their specific area of interest.

**Course Type:** Lecture

**PHAR 7502. Pediatric Medication Safety I. 2 Credit Hours.**

Prerequisites: P-2 or P-3 students in good academic standing with instructor approval This course will introduce the student to approaching a pediatric prescription and reviewing it for appropriateness. Students will review prescriptions written, propose resolution to problems identified, complete a drug information request, and communicate with physicians about prescription errors.

**Course Type:** Lecture

**PHAR 7512. Clinical Toxicology. 2 Credit Hours.**

Prerequisites: Successful completion of all coursework in the P-1 and P-2 professional program. This course presents the clinical toxicology of agents commonly ingested in overdoses, the proper management of toxic exposures, and how to find, evaluate, and use the toxicology literature to manage patients and answer poison-related questions from the public.

**Course Type:** Lecture

**PHAR 7513. Nonprescription Products and Self-Care Issues. 3 Credit Hours.**

Prerequisites: Successful completion of second professional year; P-3 status. This course promotes appropriate patient assessment, triage, product selection, counseling, and monitoring skills and attitudes required of pharmacists acting as consultant, suppliers, and monitors of non-prescription drugs, nutritional supplements, herbal products, and home health care products.

**Course Type:** Lecture

**PHAR 7522. Pediatric Medication Safety II. 2 Credit Hours.**

Prerequisites: P-3 students in good academic standing with instructor approval who have successfully complete PHAR 7502, Pediatric Medication Safety I. This course will develop an advanced approach for review of pediatric prescriptions and medication profiles for therapeutic appropriateness. Students will review written prescriptions, propose resolutions to problems identified, complete a drug information request, and communicate with physicians about prescription errors.

**Course Type:** Lecture

**PHAR 7532. Pharmacy Practice and the Geriatric Patient. 2 Credit Hours.**

Prerequisites: P-3 standing or permission. This course is designed to provide those skills necessary for pharmacists to improve the care of older people. Emphasis is placed on understanding the uniqueness of the older population and developing the knowledge and skills necessary to improve drug therapy outcomes and minimize risk associated with medication use.

**Course Type:** Lecture

**PHAR 7543. Advanced Diabetes Care. 3 Credit Hours.**

Prerequisites: Completion of PHAR 7853 for pharmacy students; permission of program director for dietetic students This elective course is designed to emphasize the integration of pathophysiology, pharmacology, behavior change, and therapeutic knowledge in the management of diabetes mellitus; to provide an introduction to clinical problem assessment of patients living with diabetes; to understand the therapeutic drug monitoring of diabetes pharmacotherapy and to discuss strategies on how to establish diabetes services in various pharmacy practice settings.

**Course Type:** Lecture

**PHAR 7552. Life with Diabetes Day Camp. 2 Credit Hours.**

Prerequisites: P-3 student in good academic standing. May be repeated; maximum credit 2 hours. Students will work as a lay volunteer for children with type 1 diabetes in a day-camp setting, mentoring children with type 1 diabetes to become more independent and empowered to perform the activities prescribed by their healthcare providers. Students will gain an understanding of the day-to-day struggles and triumphs of people with diabetes, their caregivers, and other healthcare professionals working with the population as well as have the opportunity to interact and communicate with the children, their caregivers, and their healthcare providers. (Summer III)

**Course Type:** Lecture

**PHAR 7553. Life with Diabetes Overnight Camp. 3 Credit Hours.**

Prerequisites: P3 students in good academic standing. Students will volunteer at an overnight camp for children with type 1 diabetes, mentoring children to become more independent and empowered to manage their condition. Students will communicate and interact with other healthcare professionals engaged in childhood health mentoring such as nurses, dietitians, and other public health professionals. (Summer III)

**Course Type:** Lecture

**PHAR 7562. Introduction to Pediatric Pharmacotherapy. 2 Credit Hours.**

Prerequisites: None This course will introduce students to the unique needs of pediatric patients and prepare students to provide effective general pediatric pharmacotherapy.

**Course Type:** Lecture

**PHAR 7573. Pharmacotherapy Considerations in Pediatrics. 3 Credit Hours.**

Prerequisites: P-2 or P-3 Standing and Instructor Permission. Patient case discussions utilizing drug information retrieval and literature evaluation skills to identify relevant pathophysiologic concepts, propose rational pharmacotherapeutic decisions and discuss relevant patient case management issues.

**Course Type:** Lecture



**PHAR 7611. Community Health. 1 Credit Hour.**

Prerequisites: P3 student in good academic standing The course allows an exposure to community health promotion. Students promote health for adults participating in a weigh loss/chronic disease prevention program offered by Oklahoma City County Health Department. Students promote health in a structured community setting, cooperating with other health care professionals such as nurses, dietitians, other public health professionals.

**Course Type:** Lecture

**PHAR 7614. Pharmaceutics I. 4 Credit Hours.**

Prerequisites: Admission to the College of Pharmacy and good standing as a P-1 Student. Description and quantitation of physical and chemical principles associated with pharmaceutical formulations. Description and understanding of the various liquid semisolid and solid pharmaceutical dosage forms. Discussion of the drug product approval process. Discussion of patient counseling concerning drug delivery systems. Laboratory included.

**Course Type:** Lecture

**PHAR 7621. Pharmacy Advocacy. 1 Credit Hour.**

Prerequisites: Successful completion of P1 year coursework. This is an application-based course on professional pharmacy advocacy. Students will learn, present, discuss, engage in, and apply advocacy topics that are not covered in the core curriculum including, but not limited to, legislative processes, and communicating with legislators. (SP, II)

**Course Type:** Lecture

**PHAR 7624. Pharmaceutics II. 4 Credit Hours.**

Prerequisites: Good Standing as a P-1 Student Continuation of PHAR 7614. Laboratory included.

**Course Type:** Lecture

**PHAR 7633. Basic Pharmacokinetics. 3 Credit Hours.**

Prerequisites: Good standing as a P-1 Student Description and quantitation of factors affecting the absorption, distribution, metabolism, and excretion of drugs. Development of appropriate dosage regimens and graphical analysis of drug concentration data sets. Bioequivalence and drug product testing. Drug analysis in biological matrix. Application of principles to clinical problems of drug use and patient counseling. To be offered in P-1 year.

**Course Type:** Lecture

**PHAR 7644. Clinical Pharmacy Practicum. 4 Credit Hours.**

Prerequisites: Completion of all P1 through P3 year didactic course requirements. May be repeated; maximum credit 16 hours. Clinical Pharmacy Elective: Supervised clinical practice experience involving the analysis of pharmacotherapeutic and pharmacokinetic applications, evaluation of drug utilization, and synthesis of rational drug regimens in a patient care clinical area. (Fall, Spring, & Summer IV)

**Course Type:** Practicum

**PHAR 7654. Nuclear Pharmacy Patient Care Practicum. 4 Credit Hours.**

Prerequisites: Enrollment in Nuclear Degree Option and completion of P1 through P3 coursework. May be repeated; maximum credit 8 hours. This course provides students opportunity to practice skills in pharmacist-provided patient care in nuclear medicine. The student will practice medication management in diagnostic imaging, and develop skills in the use of therapeutic radiopharmaceuticals. The rotation is based on two sets of objectives: Clinical Imaging Protocols and Case Reports. (Fall, Spring, & Summer IV)

**Course Type:** Practicum

**PHAR 7664. Elective-Patient Care Practicum. 4 Credit Hours.**

Prerequisites: Completion of all P1 through P3 year didactic course requirements. May be repeated; maximum credit 12 hours. Supervised pharmacy practice experience in a patient care setting not meeting criteria for other practicum courses (i.e. community I, hospital I, ambulatory care I, adult medicine I, clinical pharmacy elective). (Fall, Spring, & Summer IV)

**Course Type:** Practicum

**PHAR 7703. Pharmacy Business & Entrepreneurship. 3 Credit Hours.**

Prerequisites: None Superior patient care and implementation of clinical services are made possible by pharmacists who are skilled in management. Entrepreneurs must have diverse skill sets and be successful at several activities to be effective at innovating, catalyzing change, recognizing and seizing opportunities, providing value, bearing risk, and realizing benefits from efforts.

**Course Type:** Lecture

**PHAR 7704. Public Health and Health Policy. 4 Credit Hours.**

Prerequisites: None Introduction to the U.S. Health Care System and how it affects the practice of pharmacy, its comparison with other health care models, the financing of health care, and models for analyzing the economics of pharmaceuticals in health care. (Fall)

**Course Type:** Lecture

**PHAR 7712. Drug Information Systems. 2 Credit Hours.**

Prerequisites: Good standing as a P-1 Student Orientation to current drug information systems, appropriate search strategies, and communication of drug information to patients and other health care professionals.

**Course Type:** Lecture

**PHAR 7713. Pharmacy Practice: Management and Operations. 3 Credit Hours.**

Prerequisites: None This course provides an introduction to pharmacy and personnel management and marketing principles. (Spring)

**Course Type:** Lecture

**PHAR 7724. Clinical Communications. 4 Credit Hours.**

Basic concepts in interpersonal communications and application in simulated clinical settings such as patient interviews, medication education, and interactions with other health professionals.

**Course Type:** Lecture

**PHAR 7732. Pharmacy Law and Ethics. 2 Credit Hours.**

Prerequisites: Successful completion of the P-2 professional curriculum and good standing as a P-3 student. This course presents federal and state laws, rules, and regulations pertaining to the practice of pharmacy; general principles of law including criminal, civil, and administrative procedures. The code of professional conduct and ethics is woven throughout the course.

**Course Type:** Lecture

**PHAR 7733. Clinical Communications. 3 Credit Hours.**

Prerequisites: Successful completion of the P-1 professional curriculum and good standing as a P-2 student. Basic concepts in interpersonal communications and application in simulated clinical setting such as patient interviews, medication education, and interactions with other health professionals.

**Course Type:** Lecture

**PHAR 7743. Introduction to Personal Finance for Health Professionals. 3 Credit Hours.**

Prerequisites: P-2 or P-3 students in good academic standing This course offers a study of practical applications in budgeting, borrowing, investments, taxes, home ownership, and other aspects of personal money management. Students are exposed to multiple perspectives on financial markets, investing, and financial management.

**Course Type:** Lecture

**PHAR 7752. Quality Improvement in Pharmacy Practice. 2 Credit Hours.**

Prerequisites: None This course is designed to introduce the concept and applications of quality improvement in pharmacy practice.

**Course Type:** Lecture

**PHAR 7773. Ambulatory Care. 3 Credit Hours.**

Prerequisites: None. This is an application-based course to ambulatory care. Students will learn, present, discuss, and apply ambulatory care topics that are not covered in the core curriculum. Topics include, but are not limited to, various models of ambulatory care, billing practices, quality improvement, outcome measures, and service development. (Fall II, III)

**Course Type:** Lecture

**PHAR 7802. Patient Assessment. 2 Credit Hours.**

Application of clinical assessment and physical parameters to normal conditions and to various disease states.

**Course Type:** Lecture

**PHAR 7803. Counseling Patients with Psychiatric Disorders. 3 Credit Hours.**

Prerequisites: For P-2 and P-3 students with permission of course instructor This course is designed to emphasize the integration of the current understanding of the pathophysiology, pharmacology, and therapeutic knowledge in the identification and treatment of selected psychiatric disorders and to use this information for strategies to integrate interventions into a health system via a counseling resource within an identified.

**Course Type:** Lecture

**PHAR 7812. Advanced Drug Literature Evaluation. 2 Credit Hours.**

Preparation for the efficient utilization, critical evaluation, and clinical application of drug literature.

**Course Type:** Lecture

**PHAR 7813. Pharmaceutical Care I. 3 Credit Hours.**

Principles of Pharmaceutical Care including health promotion, health defeating behaviors, proper nutrition, age-related changes affecting medication selection and effects; detection, evaluation, and reporting of adverse drug reactions; and the Pathophysiologic, Pharmaceutical, Pharmacologic, and therapeutic considerations in managing pain, fever, nausea, vomiting, constipation, and diarrhea.

**Course Type:** Lecture

**PHAR 7823. Traumatic Brain Injury. 3 Credit Hours.**

Prerequisites: Eligibility for electives. This course is composed of three components: (1) knowledge of the neurological and psychological impact of traumatic brain injury (TBI); (2) the psychopharmacological basis for the treatment of TBI and (3) development of the rationale for a comprehensive treatment plan with pharmacological and nonpharmacological interventions.

**Course Type:** Lecture

**PHAR 7824. Pharmaceutical Care II. 4 Credit Hours.**

The pathophysiologic, pharmaceutical, pharmacologic, and therapeutic considerations in the care of patients with cardiovascular diseases.

**Course Type:** Lecture

**PHAR 7832. Clinical Pharmacokinetics. 2 Credit Hours.**

Prerequisites: Successful completion of the P-1 professional curriculum and good standing as a P-2 student. Application of Biopharmaceutical and Pharmacokinetic theory to clinical problems involved in optimizing and monitoring drug use in patients.

**Course Type:** Lecture

**PHAR 7833. Pharmaceutical Care III. 3 Credit Hours.**

The pathophysiologic, pharmaceutical, pharmacologic, and therapeutic considerations in the care of patients with respiratory and renal diseases.

**Course Type:** Lecture

**PHAR 7834. Pharmacokinetics. 4 Credit Hours.**

Prerequisites: Enrollment in the P-2 professional curriculum This course teaches the application of biopharmaceutical and pharmacokinetic theory to clinical problems involved in optimizing and monitoring drug use in patients.

**Course Type:** Lecture

**PHAR 7843. Psychoactive Substances. 3 Credit Hours.**

Prerequisites: Eligibility for electives This course is designed to emphasize the integration of pathophysiology, pharmacology, and therapeutic knowledge in the identification and presentation of potential psychiatric effects of herbal, illicit, and over-the-counter substances for the pharmacy student and for the pharmacy student to disseminate this knowledge in clinical practice. This course is offered online only.

**Course Type:** Lecture

**PHAR 7853. Pharmaceutical Care V. 3 Credit Hours.**

The Pathophysiologic, Pharmaceutical, Pharmacologic, and therapeutic considerations in the care of patients with Endocrinologic diseases.

**Course Type:** Lecture

**PHAR 7862. Pharmaceutical Care VI. 2 Credit Hours.**

The pathophysiologic, pharmaceutical, pharmacologic, and therapeutic considerations in the care of patients with gastrointestinal and rheumatologic diseases.

**Course Type:** Lecture

**PHAR 7863. Schizophrenia and Pharmacotherapy Treatment Options. 3 Credit Hours.**

Prerequisites: Eligibility for electives and permission of instructor This course is composed of two components: (1) knowledge of the psychopharmacological basis for the treatment of schizophrenia and/or other psychosis and (2) development of and rationale for a comprehensive treatment plan with pharmacological and nonpharmacological interventions.

**Course Type:** Lecture

**PHAR 7872. Alcoholism and Other Drug Dependencies. 2 Credit Hours.**

Prerequisites: Eligibility for electives This elective will be offered during June of each year in conjunction with the University of Utah School on Alcoholism and Other Drug Dependencies. Registration for this elective is in the fall semester. Participation is limited to 15 students per OU faculty member in accordance with the student-to faculty ratio established by the University of Utah. Prior to participation in the Utah component of the elective two general class meetings will be held prior to enrollment and participation the University of Utah program. Additionally students participating in the University of Utah program must attend class session in Oklahoma and participate in a presentation session.

**Course Type:** Lecture

**PHAR 7873. Pharmaceutical Care VII. 3 Credit Hours.**

The Pathophysiologic, Pharmaceutical, Pharmacologic, and therapeutic considerations in the care of patients with infectious diseases.

**Course Type:** Lecture

**PHAR 7874. Psychopharmacology of Substance Use and Dependence. 4 Credit Hours.**

Prerequisites: Eligibility for electives and permission of instructor  
This course is composed of two components: (1) knowledge of the psychopharmacological basis for substance use and abuse leading to the development of a basic presentation which can be adapted for presentations to a variety of audiences and (2) presentation of this information to middle and high school students in a variety of settings.

**Course Type:** Lecture

**PHAR 7882. Nonprescription Products. 2 Credit Hours.**

Prerequisites: P-1/P-2 year professional courses Product selection required of pharmacists acting as consultants, supplies, and monitors of nonprescription drugs and home health care products.

**Course Type:** Lecture

**PHAR 7883. Pharmaceutical Care VIII. 3 Credit Hours.**

The Pathophysiologic, Pharmaceutical, Pharmacologic, and therapeutic considerations in the care of patients with hematologic disorders or cancer.

**Course Type:** Lecture

**PHAR 7891. Pharmaceutical Care IX. 1 Credit Hour.**

Prerequisites: Successful completion of the P-1 professional curriculum and good standing as a P-2 student. The Pathophysiologic, Pharmaceutical, Pharmacologic, and therapeutic considerations in the care of patients with dermatologic disorders.

**Course Type:** Lecture

**PHAR 7893. Psychiatric Disorders and Comorbid Conditions. 3 Credit Hours.**

Prerequisites: Eligibility for electives and permission of instructor This core elective in psychiatric certification focuses on the coexistence of psychiatric illnesses and chronic health problems. Track options for psychiatric illness, such as schizophrenia or depression, existing with chronic health problems will be studied.

**Course Type:** Lecture

**PHAR 7894. Pharmaceutical Care of Neurologic and Psychiatric Disorders. 4 Credit Hours.**

Prerequisites: Good academic standing in P-3 year This course provides an introduction to the pathophysiology and therapeutics of neurologic and psychiatric disorders, with a focus on the pharmacology and chemistry of agents commonly used in therapy.

**Course Type:** Lecture

**PHAR 7970. Seminar in Advanced Pharmacy Practice. 2 Credit Hours.**

Prerequisites: Good academic standing in the 4th professional year Yearlong Course Supervised experience in the preparation and presentation of selected topics of current interest in patient care, pharmacy management and clinical research. This course is delivered across the entire fourth professional year, with the students enrolled in the Summer semester and grades assigned at the conclusion of the Spring Semester. Yearlong Course

**Course Type:** Discussion

**PHAR 7972. Interdisciplinary Geriatric Care. 2 Credit Hours.**

This course is an introduction to interdisciplinary and multidisciplinary approaches to health care of the elderly. It shows the importance of working together, and how team work will benefit the patient. It considers current issues in geriatric care and how different professions can interact for better patient care.

**Course Type:** Lecture

**PHAR 7980. Research in Pharmacy Practice. 2 Credit Hours.**

Directed pharmacy practice research under the supervision of the Doctor of Pharmacy project committee.

**Course Type:** Clinical

**PHAR 7990. Special Studies in Pharmaceutical Sciences. 1-6 Credit Hours.**

Prerequisites: None May be repeated; maximum credit 12 hours.

Laboratory and library work to give qualified students an opportunity to pursue an original investigation or an interest in a special problem.

**Course Type:** Independent Study

**PHAR 7991. Current Topics in Pharmaceutical Sciences. 1 Credit Hour.**

Prerequisites: Permission of Instructor May be repeated; maximum credit 2 hours. This course will highlight current research in a broad range of topics from the basic, clinical, social, and administrative pharmaceutical sciences, using a journal club approach. One paper will be assigned weekly for study before the class session. In class discussions will be led by a faculty facilitator.

**Course Type:** Lecture

**PHAR 8100. Spirituality in Medicine. 2 Credit Hours.**

Prerequisites: None. This one-week elective course is to include an introduction to spirituality in medical situations and dilemmas, exposure to various faith traditions to encourage spiritual sensitivity, exposure to palliative care through a hospice visit, and consideration of spiritual challenges experienced by providers.

**Course Type:** Lecture