

University of Colorado Anschutz Medical Campus
Skaggs School of Pharmacy
Doctor of Pharmacy Program 2019-2020

(The Pharmacy curriculum is subject to change without notice.) .

FALL SEMESTER

- PHRD 5001 Introduction to Pharmacy** **0.6 cr.**
David Thompson, Ph.D. (Fall) Prerequisites – P1 status.
Course introduces students to how the pharmaceutical, chemical and biological sciences relate to each other and the practice of Pharmacy. Experience gained from this course allows students to comprehend how fundamental sciences integrate to form a foundation for pharmacy practice.
- PHRD 5010 IPPE Community** **2.0 cr.**
Wes Nuffer, Pharm.D. (P1 & P2 Fall, P1 Spring) Prerequisites – P1/P2 status.
This is the first in a series of experiential-based courses, providing 80 hours of community pharmacy practice experience. Students will participate in all facets of community pharmacy practice, with a particular focus on the development of communication and professionalism skills.
- PHRD 5015 Mechanisms of Disease** **3.0 cr.**
Rob Scheinman, Ph.D. (Fall) Prerequisites – P1 status.
Introduces students to concepts in cell biology and pathophysiology that form a foundation for understanding mechanisms by which drugs act or intervene with disease processes. Knowledge gained from course sets a foundation for understanding disease development and progression in subsequent courses.
- PHRD 5025 Applied Biological Chemistry** **3.0 cr.**
Krishna Mallela, Pharm.D. (Fall) Prerequisites – P1 status.
Course builds upon student knowledge of biochemistry to explore applications of biochemistry to diseases, drug actions and drug development. Knowledge gained from this course is used as a foundation for understanding the rationale for the therapeutic uses of drugs.
- PHRD 5045 Pharmacy Law & Regulatory Standards** **3.0 cr.**
Gina Moore, Pharm.D. (Fall) Prerequisites – P1 status.
Course introduces students to pharmacy laws and regulations. Students are able to carry out their intern duties in accordance with professional guidelines and regulatory standards. The course also explores how to apply ethical and professional principles in various healthcare settings.
- PHRD 5055 Pharmacy Practice Fundamentals & Drug Information** **4.0 cr.**
Randall Knutsen, B.S. (Fall) Prerequisites – P1 status.
Course provides students with tactics necessary to perform dispensing duties in most pharmacy settings. Fundamentals of the practice of drug information are introduced. Pharmacy practice and drug information fundamentals are presented with context of history of pharmacy and contemporary pharmacy practice.
- PHRD 5065 Patient-Centered Communication 1** **3.0 cr.**
Sarah Scoular, Pharm.D. (Fall) Prerequisites – P1 status.
During this two-course active learning series, students develop skills to communicate effectively with patients, caregivers and healthcare providers to facilitate optimal patient outcomes. These courses cover all aspects of professional communication, including gathering, organizing, conveying and documenting patient-related information.
- PHRD 5075 Pharmacotherapy Self-Care 1** **3.0 cr.**
Sunny Linnebur, Pharm.D. (Fall) Prerequisites – P1 status.
Course prepares students to be able to 1) collect appropriate patient data to make an assessment for self-care (e.g. nonprescription products), 2) conduct a patient-centered assessment, and 3) design, implement, evaluate and adjust a patient-centered self-care plan.
- PHRD 6015 Pharmacokinetics** **3.0 cr.**
Pete Anderson, Pharm.D. (Fall) Prerequisites – P2 status
The influence of physiological and pathophysiological factors on drug levels is considered. Knowledge gained allows students to calculate appropriate dosing of drugs in patients and anticipate how drug doses should be adjusted in disease and the presence of other drugs.
- PHRD 6065 Evidence-based Medicine & Literature Evaluation** **3.0 cr.**
Rob Valuck, Ph.D. (Fall) Prerequisites – P2 status.
An introduction and step-wise approach to evidence-based medicine. Students understand commonly-used statistical tests and evaluate statistical results for statistical versus clinical significance. Students demonstrate by answering short drug information questions, presenting a journal club and writing a drug information paper.

PHRD 6085 Pharmacotherapy 2	5.0 cr.
Joseph Saseen, Pharm.D. (Fall) Prerequisites – PHRD 5985, P2 status. This 7 course series includes pathophysiology, pharmacology, and therapeutics of a range of system based physiological conditions. Standards of care, controversial issues, pharmacotherapy advances, and patient management are covered. Areas covered in this course: nephrology, cardiology 1.	
PHRD 6095 Pharmacotherapy 3	5.0 cr.
Jennifer Trujillo, Pharm.D. (Fall) Prerequisites – PHRD 5985, P2 status. This 7 course series includes pathophysiology, pharmacology, and therapeutics of a range of system based physiological conditions. Standards of care, controversial issues, pharmacotherapy advances, and patient management are covered. Areas covered in this course: endocrinology, gynecology, urology.	
PHRD 7015 Seminar Research 2	1.0 cr.
Rob MacLaren, Pharm.D. (Fall) Prerequisites – PHRD 6915, P3 status. Students will apply their ability to retrieve, evaluate, and utilize professional information in a critical and scientific manner. Students independently determine how to best solve a pharmacy-related question using scientific principles, and present their findings to a large audience.	
PHRD 7025 Pharmacogenomics	2.0 cr.
Chris Aquilante, Pharm.D. (Fall) Prerequisites – P3 status. Course provides students with an understanding of how genetic factors influence drug efficacy. Knowledge gained from this course enhances students' ability to select the most effective therapeutic intervention.	
PHRD 7045 Public Health & Health Outcomes 2	3.0 cr.
Jon Campbell, Ph.D. (Fall) Prerequisites – PHRD 6945, P3 status. Course concepts are medication safety, drug usage, pharmacoconomics, and pharmacoepidemiology. Students analyze medication systems by using population data and risk management strategies, critically evaluate economic literature on a drug, and compare pharmacy and non-pharmacy treatments on economic and humanistic outcomes.	
PHRD 7055 Pharmacy Management	2.0 cr.
Randy Knutsen, B.S. (Fall) Prerequisites – P3 status. The course provides an introduction to management in community pharmacy practice, hospital pharmacy management, and other business and management skills needed to be successful in a variety of different practice settings.	
PHRD 7085 Pharmacotherapy 6	4.0 cr.
Ty Kiser, Pharm.D. (Fall) Prerequisites – PHRD 6985, PHRD 6995, P3 status. This 7 course series includes pathophysiology, pharmacology, and therapeutics of a range of system based physiological conditions. Standards of care, controversial issues, pharmacotherapy advances, and patient management are covered. Areas covered in this course: infectious diseases 2.	
PHRD 7095 Pharmacotherapy 7	4.0 cr.
Cindy O'Bryant, Pharm.D. (Fall) Prerequisites – PHRD 6985, PHRD 6995, P3 status This 7 course series includes pathophysiology, pharmacology, and therapeutics of a range of system based physiological conditions. Standards of care, controversial issues, pharmacotherapy advances, and patient management are covered. Areas covered in this course: hematology, oncology, rheumatology, transplantation.	
PHRD 7800 Pharmacy Practice Experience Fundamentals (elective)	1.0 cr.
DELETE COURSE Megan Thompson, Pharm.D. (Fall, Spring, Summer) Department consent required. This elective course provides students additional opportunities to participate in experiential learning during semesters when they are not concomitantly enrolled in courses with an experiential component. Students will engage with preceptors at various practice sites and participate in experiential-related activities.	
PHRD 7801 Principles of Clinical Pharmacology (elective)	3.0 cr.
Peter Rice, Pharm.D., Ph.D. (Fall) - P3 status The course provides students with a foundational knowledge of clinical pharmacology, including pharmacokinetics, drug metabolism, assessment of drug effects, optimizing patient therapy and drug discovery & development. It is grounded in weekly topical lectures, supplemented by readings, discussion and assignments.	
PHRD 7803 Dermatology (elective)	2.0 cr.
DELETE COURSE Peter Rice, Pharm.D., Ph.D. (Fall) P3 status This course will review the anatomy, physiology, pharmacology and pathology of the skin emphasizing the role of systemic and topical drugs in preventing and treating skin disease.	
PHRD 7805 Honors Thesis Study Course	2.0 cr.
Robert MacLaren, Pharm.D. (Fall, Spring) Students in the Honors Program may use this elective course to complete specific outcomes of their Honors project over 1-2 semesters. The student/mentor must complete the Approval and Proposal forms (found on SOP website) prior to enrolling.	

PHRD 7808 Introduction to Pharmaceutical Industry (elective)	2.0 cr.
Shaun Gleason, Pharm.D. (Fall)	
Course provides a broad background on the pharmaceutical industry. Reviews of major pharmaceutical company functions will be covered, Emphasis will be placed on clinical development and areas of opportunity for those with a pharmacy or pharmaceutical sciences background.	
PHRD 7812 Seminar in Pharmaceutical Sciences (elective)	2.0 cr.
Thomas DeLong, Ph.D. (Fall, Spring)	
Provides practical experience in the evaluation and discussion of research literature. Students will prepare a seminar and participate in scientific discussions. Students who are interested in broadening knowledge in pharmaceutical science, drug delivery, and improving their speaking skills will benefit.	
PHRD 7815 Physical Assessment in Pharmacy (elective)	2.0 cr.
Samuel Ellis, Pharm.D (Fall) P2 -P3 status	
This course is designed to provide students with functional knowledge and skills in the area of physical assessment and will aid students in enhancing the assessment of disease and drug therapy in a variety of practice settings.	
PHRD 7825 Substance Abuse & Dependence (elective) DELETE COURSE	2.0 cr.
Richard Radcliffe, Ph.D. (Fall) Prerequisites – P3 status.	
This course will explore substance abuse over a broad range of topics including the neurobiology and causes of substance abuse; prescription drug abuse; issues related to acute intoxication, overdose and withdrawal; and social controversies such as the legalization of marijuana.	
PHRD 7840 Caring for Psychiatric Patient (elective)	2.0 cr.
Kari Franson, Pharm.D., Ph.D. (Fall, Spring) Prerequisites – P3 status.	
This course builds on Pharmacotherapy 5 by addressing clinical, social, economic and ethical aspects of psychiatric care. Student teams examine psychiatric disease states from the patient's point of view, evaluate patient cases, write therapeutic plans, and role play patient education.	
PHRD 7844 Special Topics in Compounding (elective)	2.0 cr.
Susan Finstrom, Pharm.D. (Fall) Prerequisites – P3 status.	
Course will provide students with an understanding of principles and practices involved in clinical aspects of pharmacy compounding. Students will utilize readings, case studies, class discussion, outside-class assignments, and written evaluation to learn how pharmacy compounding may solve medication-related problems. Department Consent Required.	
PHRD 7855 Independent Study Elective	1.0-4.0 cr.
Doug Fish, Pharm.D./David Ross, Ph.D. (Fall, Spring) Prerequisite – Per Department Chair approval	
PHRD 7854 Database Management Systems Independent Study	3.0 cr.
Katy Trinkley, Pharm.D.. (Fall, Spring) Prerequisite – Interview and application required.	
Designed to give students a solid foundation in practical database design and implementation. This study will help students develop database design skills that have valuable and meaningful application in clinical informatics settings.	
PHRD 7856 Independent Study	2.0 cr.
Heather Anderson, Ph.D. (Fall, Spring) Prerequisites – Per Department Chair approval	
PHRD 7857 Compounding Pharmacy Elective	2.0 cr.
Peter Rice, Pharm.D., Ph.D. (Fall, Spring) Prerequisites – P2-P3 status.	
An elective course to offer compounding skills for pharmacy students.	
PHRD 7858 Managed Care Independent Study	2.0 cr.
Heather Anderson, Ph.D. (Fall, Spring) Prerequisite – P2 status, application required.	
Study at Kaiser Permanente Colorado is to provide the student with various managed care pharmacy experiences, both didactic and experiential.	
PHRD 7860 Integrated Health & Medicine (elective)	2.0 cr.
Monika Nuffer, Pharm.D. (Fall)	
This course is designed to develop a broad knowledge base in the field of Complementary and Alternative Medicine (CAM). This course will cover common vitamins and minerals, herbal products, and bio-identical hormones, and core CAM domains and discussions of regulatory issues.	
PHRD 7862 Global Health Disparities (elective)	2.0 cr.
Meghan Jeffres, Pharm.D. (Fall) Prerequisite P2–P3 status	
Key issues in the struggle of decreasing global health inequality are medication access and affordability. This course provides expertise in these areas as well as prevention, screening, and treatment of communicable and non-communicable diseases affecting patients in resource poor areas.	
PHRD 7865 Film and Healthcare (elective)	2.0 cr.
Kari Franson, Pharm.D., Ph.D. (Fall)	
This elective is designed to encourage pharmacy students to reflect upon the humanistic issues associated with health, disease and treatment through the lenses of film and literature.	

- PHRD 7870 Pediatric Pharmacy Practice (elective)** **2.0 cr.**
Allison Blackmer, Pharm.D. (Fall) Prerequisite – P3 status.
This course will be offered to students interested in developing and fostering their knowledge and assessment of childhood diseases and pharmacotherapy. Clinical pharmacy specialists and staff from the Children's Hospital of Denver will teach this course.
- PHRD 7895 Beginning Medical Spanish (elective)** **2.0 cr.**
Connie Valdez, Pharm.D. (Fall, Spring) Prerequisite – Placement exam.
This Beginning Medical Spanish course, tailored for pharmacy students, is designed to allow students to become comfortable with conversational Spanish and medical vocabulary in various pharmaceutical contexts. Language learning is both academic and experiential.
- PHRD 7896 Intermediate Medical Spanish (elective)** **2.0 cr.**
Connie Valdez, Pharm.D. (Fall, Spring) Prerequisite – Placement exam.
This intermediate medical Spanish course, tailored for pharmacy students, is designed to allow students to become comfortable with intermediate conversational Spanish and medical vocabulary in various pharmaceutical contexts. Language learning is both academic and experiential.
- PHRD 8045 Advanced Pharmacy Practice Experience – Medication Therapy Management** **3.0 cr.**
Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status
Three-week rotation; 40 hrs weekly. This experience will take place in a community pharmacy practice setting. Students will participate in medication therapy reviews, pharmacotherapy consults, anticoagulation management, and other clinical services that optimize therapeutic outcomes for individual patients.
- PHRD 8055 Advanced Pharmacy Practice Experience – Elective** **6.0 cr.**
Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status
Six week rotation; 40 hrs weekly. This experience will take place in various practice settings. Students may participate in various activities that focus on medication-related problems dealing with various populations, with or without direct patient contact.
- PHRD 8065 Advanced Pharmacy Practice Experience – Ambulatory Care** **6.0 cr.**
Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status
Six week rotation; 40 hrs weekly. This experience will take place in an ambulatory care, multidisciplinary practice setting. Practice sites may include hospital-based clinics, physician group practices, and community or public health clinics that provide health care directly to patients.
- PHRD 8075 Advanced Pharmacy Practice Experience – Community** **6.0 cr.**
Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status
Six week rotation; 40 hrs weekly. This experience will take place in a community pharmacy practice setting. Practice sites include independent, large chain or retail pharmacies that provide a variety of services, including administration of immunizations and health/wellness screenings.
- PHRD 8085 Advanced Pharmacy Practice Experience – Hospital/Health-System Pharmacy** **6.0 cr.**
Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status
Six week rotation; 40 hrs weekly. This experience will take place in an inpatient practice setting. Students will be exposed to adult patients with a variety of disease states, and participate in other institutional activities related to clinical pharmacy services.
- PHRD 8995 Intersession** **2.0 cr.**
Allison Blackmer, Pharm.D. (Fall) Prerequisite – P4 status. Department Consent Required.
Students present clinical cases, clinical pearls, and drug information questions from their APPEs in a formalized manner that instills professionalism through collegial interactions, re-engages with campus community, and cultivates a spirit of community.

SPRING SEMESTER

- PHRD 5915 Modern Drug Design & Actions** **2.0 cr.**
Daniel LaBarbera, Ph.D. (Spring) Prerequisites – P1 status.
This course explores the modern drug discovery and development processes and utilizes clinical examples to teach students to rationalize and predict how the chemical structure of a drug dictates its medicinal properties and routes of metabolism.
- PHRD 5925 Pharmaceutics** **4.0 cr.**
Tom Anchordoquy, Ph.D. (Spring) Prerequisites – P1 status.
Introduces students to biophysical and chemical considerations in development of pharmaceuticals products and compounding of various dosage forms, principles of parenteral drug preparation and administrations. Knowledge gained allows students to understand formulation development and optimize dosage forms for individual patients.
- PHRD 5935 Pharmacology & Toxicology** **2.0 cr.**
David Thompson, Ph.D. (Spring) Prerequisites – P1 status.
Using the nervous systems as a model, the course introduces students to the mechanisms by which drugs produce therapeutic effects and side effects. The mechanisms of drug toxicity and how toxicity can be prevented and treated will be explored.

PHRD 5965 Patient-Centered Communication 2	3.0 cr.
Toby Trujillo, Pharm.D. (Spring) Prerequisites – PHRD 5065, P1 status.	
During this two-course active learning series, students develop skills to communicate effectively with patients, caregivers and healthcare providers to facilitate optimal patient outcomes. These courses cover all aspects of professional communication, including gathering, organizing, conveying and documenting patient-related information.	
PHRD 5975 Pharmacotherapy Self-Care 2	2.0 cr.
Connie Valdez , Pharm.D. (Spring) Prerequisites – PHRD 5075, P1 status.	
Course prepares students to be able to 1) collect appropriate patient data to make an assessment for self-care (e.g. nonprescription products), 2) conduct a patient-centered assessment, and 3) design, implement, evaluate and adjust a patient-centered self-care plan.	
PHRD 5985 Pharmacotherapy 1	4.0 cr.
Sheryl Vondracek, Pharm.D. (Spring) Prerequisites – P1 status.	
This 7 course series includes pathophysiology, pharmacology, and therapeutics of a range of system based physiological conditions. Standards of care, controversial issues, pharmacotherapy advances, and patient management are covered. Areas covered in this course: gastrointestinal, pulmonology, dermatology, ophthalmology, optic diseases.	
PHRD 6900 Experiential IPE	1.0 cr.
Eric Gilliam, Pharm.D. (P2 & P3 Spring, P3 Fall) Prerequisites – P2/P3 status.	
This experiential-based course aligns with the CU Center for IPE. Students complete interprofessional simulation training (Clinical Transformations) at the Center for Advancement of Professional Education and practice with a clinical team during the IP Provider IPPE Program (Clinical Integrations).	
PHRD 6910 IPPE Health System	2.0 cr.
Eric Gilliam, Pharm.D. (P2 Spring, P3 Fall) Prerequisites –P2/P3 status.	
This experiential-based course provides 80 hours of health-system pharmacy practice, focusing on the delivery of patient care and systems used to provide care to multiple patients. Course further develops professionalism, communication, and skills needed for advanced experiential training.	
PHRD 6915 Seminar Research 1	1.0 cr.
Rob MacLaren, Pharm.D. (Spring) Prerequisites – P2 status.	
Students will apply their ability to retrieve, evaluate, and utilize professional information in a critical and scientific manner. Students independently determine how to best solve a pharmacy-related question using scientific principles, and present their findings to a large audience.	
PHRD 6925 Medicinal Chemistry	2.0 cr.
Philip Reigan, Ph.D. (Spring) Prerequisites – P2 status.	
This course is an application of medicinal chemistry concepts using clinically relevant case studies, designed to examine mechanism(s) of drug action and resistance, structure activity relationships, and other concepts related to the pharmacology and clinical use of modern drugs.	
PHRD 6945 Public Health & Health Outcomes 1	3.0 cr.
Robert Page, Pharm.D. (Spring) Prerequisites – P2 status.	
Introduces students to health care delivery systems and discusses the social, political, economic factors that influence these systems. Students will link various medication use systems to their role in development and participation in health promotion, disease prevention, public health policy.	
PHRD 6965 Clinical Reasoning & Decision Making	2.0 cr.
Sam Ellis, Pharm.D. (Spring) Prerequisites - P2 status.	
Course prepares students to critically think through design, implementation, evaluation and adjustment of patient-centered pharmacy care plans. Students are presented principles of clinical practice guidelines, faculty modeling solving patient cases, and then small group discussion and debates on patient cases.	
PHRD 6985 Pharmacotherapy 4	5.0 cr.
Doug Fish, Pharm.D. (Spring) Prerequisites – PHRD 6085, 6095, P2 status.	
This 7 course series includes pathophysiology, pharmacology, and therapeutics of a range of system based physiological conditions. Standards of care, controversial issues, pharmacotherapy advances, and patient management are covered. Areas covered in this course: cardiology 2, infectious diseases 1.	
PHRD 6995 Pharmacotherapy 5	4.0 cr.
Jacci Bainbridge, Pharm.D. (Spring) Prerequisites – PHRD 6085, 6095, P2 status.	
This 7 course series includes pathophysiology, pharmacology, and therapeutics of a range of system based physiological conditions. Standards of care, controversial issues, pharmacotherapy advances, and patient management are covered. Areas covered in this course: psychiatry, neurology.	
PHRD 7802 Principles of Clinical Pharmacology 2 (elective)	3.0 cr.
Peter Rice, Pharm.D., Ph.D. (Spring) Prerequisite – PHRD 7801, P3 status	
The course provides students with a foundational knowledge of clinical pharmacology, including pharmacokinetics, drug metabolism, assessment of drug effects, optimizing patient therapy and drug discovery & development. It is grounded in weekly	

topical lectures, supplemented by readings, discussion and assignments.

PHRD 7805 Honors Thesis Study Course Robert MacLaren, Pharm.D. (Fall, Spring)	2.0 cr.
Students in the Honors Program may use this elective course to complete specific outcomes of their Honors project over 1-2 semesters. The student/mentor must complete the Approval and Proposal forms (found on SOP website) prior to enrolling.	
PHRD 7810 Pharm Outcomes Research Methods (elective) Heather Anderson, Ph.D., (Spring) Prerequisites – P2 status.	2.0 cr.
Students completing this course will be able to identify and write a clinical research question; identify variables for analyses; complete intermediate statistical analyses to answer their research question; write-up their study as a scientific manuscript; and present their research orally.	
PHRD 7812 Seminar in Pharmaceutical Sciences (elective) Thomas Delong , Ph.D. (Fall, Spring) P1-P2 status	2.0 cr.
Provides practical experience in the evaluation and discussion of research literature. Students will prepare a seminar and participate in scientific discussions. Students who are interested in broadening knowledge in pharmaceutical science, drug delivery, and improving their speaking skills will benefit.	
PHRD 7830 Infectious Diseases Elective Meghan Jeffres, Pharm.D. (Spring) P3 status	2.0 cr.
This course will address the pharmacology and appropriate clinical use of agents used in the treatment and management of selected infectious diseases. The course will also focus on pharmacodynamics of antimicrobial agents, antibiotic stewardship, antibiotic resistance, and statistics.	
PHRD 7835 Advanced Cardiovascular Pharmacotherapy (elective) Toby Trujillo, Pharm.D. (Spring) Prerequisites – P3 status.	2.0 cr.
The purpose of this course is to provide a more comprehensive and in-depth background in cardiovascular pharmacotherapy for students interested in, or planning to practice in, settings where the care of patients with cardiovascular disease is emphasized.	
PHRD 7836 Ambulatory Care Elective Liza Claus , Pharm.D. (Spring) P3 Status	2.0 cr.
Students will be introduced to emerging roles for pharmacists in the primary care setting, will gain further knowledge and skills regarding chronic disease management, and will be introduced to billing, regulatory, policy, and legal considerations for this practice environment.	
PHRD 7840 Caring for Psychiatric Patient (elective) Kari Franson, Pharm.D., Ph.D. (Fall) Prerequisites – P3 status.	2.0 cr.
This course builds on Pharmacotherapy 5 by addressing clinical, social, economic and ethical aspects of psychiatric care. Student teams examine psychiatric disease states from the patient's point of view, evaluate patient cases, write therapeutic plans, and role play patient education.	
PHRD 7850 Geriatric Pharmacy Elective Sunny Linnebur, Pharm.D. (Spring) Prerequisite - P3 status.	2.0 cr.
This course is intended to provide the student with an advanced understanding of pharmacotherapy in older adults as well as common medical, psychological, and social issues encountered when caring for older adults.	
PHRD 7854 Independent Study Database Management Systems Katy Trinkley, Pharm.D. (Spring) P1-P2 status, Application/interview required	3 cr.
Designed to give students a solid foundation in practical database design and implementation. This study will help students develop database design skills that have valuable and meaningful application in clinical informatics settings.	
PHRD 7855 Independent Study Elective Doug Fish, Pharm.D./David Ross, Ph.D. (Fall, Spring) Per Department Chair approval	1.0-4.0 cr.
PHRD 7856 Independent Study Heather Anderson, Ph.D. (Fall, Spring) - Per Department Chair approval	2.0 cr.
PHRD 7857 Compounding Pharmacy Elective Peter Rice, Pharm.D., Ph.D. (Fall, Spring) Prerequisites – P2 status.	2.0 cr.
An elective course to offer compounding skills for pharmacy students.	
PHRD 7858 Managed Care Independent Study Heather Anderson, Ph.D. (Fall, Spring) Prerequisite – P2 status. Application/essay required	2.0 cr.
Study at Kaiser Permanente Colorado is to provide the student with various managed care pharmacy experiences, both didactic and experiential.	
PHRD 7865 Film and Healthcare (elective) DELETE – from spring Kari Franson, Pharm.D., Ph.D. (Fall)	2.0 cr.

This elective is designed to encourage pharmacy students to reflect upon the humanistic issues associated with health, disease and treatment through the lenses of film and literature.

PHRD 7880 Women's Health Elective **2.0 cr.**

Laura Borgelt, Pharm.D. (Spring) Prerequisite – P2 status.

This course will address the clinical, social, economic, and ethical aspects of women's health care.

PHRD 7885 Acute Care Pharmacotherapy (elective) **2.0 cr.**

Rob MacLaren, Pharm.D. (Spring) Prerequisite – P3 status.

Pharmacology and appropriate clinical use of agents used in the treatment of selected acute disorders found in hospitalized patients. The course will also focus on the comprehensive nature of these acute disorders. Recent advances in pharmacotherapy, patient-specific management strategies, and controversial issues will be included and emphasized.

PHRD 7890 Advanced Oncology Pharmacy (elective) **2.0 cr.**

Cindy O'Bryant, Pharm.D. (Spring) – P3 status.

Students will learn pathophysiology and treatment of solid organ and hematologic malignancies, practical use of antineoplastic agents, and provision of supportive care for patients of cancer.

PHRD 7895 Beginning Medical Spanish (elective) **2.0 cr.**

Connie Valdez, Pharm.D. (Fall, Spring) Prerequisite: Placement exam

This beginning medical Spanish course, tailored for pharmacy students, is designed to allow students to become comfortable with conversational Spanish and medical vocabulary in various pharmaceutical contexts. Language learning is both academic and experiential.

PHRD 7896 Intermediate Medical Spanish (elective) **2.0 cr.**

Connie Valdez, Pharm.D. (Fall, Spring) Prerequisite: Placement exam

This intermediate medical Spanish course, tailored for pharmacy students, is designed to allow students to become comfortable with intermediate conversational Spanish and medical vocabulary in various pharmaceutical contexts. Language learning is both academic and experiential.

PHRD 7905 Advanced IPPE **6.0 cr.**

Eric Gilliam Pharm.D. (Spring) Prerequisites – PHRD 7005, P3 status.

Students are placed in a 6-week, full-time (40 hours per week) patient care experience in which they can begin to apply their didactic knowledge. In this advanced IPPE students demonstrate competency to meet pre-APPE core performance domains and abilities.

PHRD 7965 Health Care Informatics **2.0 cr.**

Katy Trinkley, Pharm.D. (Spring) Prerequisites – P3 status.

Provides content about informatics topics including a working understanding of knowledge systems for students to manage medication use systems to optimize patient and population outcomes. Students use tools to assess and address change, increase competitiveness, improve quality, optimize patient services.

PHRD 7995 Clinical Capstone **6.0 cr.**

Joel Marrs, Pharm.D. (Spring) Prerequisites – PHRD 7905, P3 status.

Course is designed to be a capstone that integrates essential core pharmacy practice topics. The philosophy of this course is to facilitate student learning, and holding students accountable for prior learning in an integrated manner using complex patient scenarios.

PHRD 8045 Advanced Pharmacy Practice Experience – Medication Therapy Management **3.0 cr.**

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Three-week rotation; 40 hrs weekly. This experience will take place in a community pharmacy practice setting. Students will participate in medication therapy reviews, pharmacotherapy consults, anticoagulation management, and other clinical services that optimize therapeutic outcomes for individual patients.

PHRD 8055 Advanced Pharmacy Practice Experience – Elective **6.0 cr.**

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Six week rotation; 40 hrs weekly. This experience will take place in various practice settings. Students may participate in various activities that focus on medication-related problems dealing with various populations, with or without direct patient contact.

PHRD 8065 Advanced Pharmacy Practice Experience – Ambulatory Care **6.0 cr.**

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Six week rotation; 40 hrs weekly. This experience will take place in an ambulatory care, multidisciplinary practice setting. Practice sites may include hospital-based clinics, physician group practices, and community or public health clinics that provide health care directly to patients.

PHRD 8075 Advanced Pharmacy Practice Experience – Community **6.0 cr.**

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Six week rotation; 40 hrs weekly. This experience will take place in a community pharmacy practice setting. Practice sites include independent, large chain or retail pharmacies that provide a variety of services, including administration of immunizations and health/wellness screenings.

PHRD 8085 Advanced Pharmacy Practice Experience – Hospital/Health-System Pharmacy 6.0 cr.

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Six week rotation; 40 hrs weekly. This experience will take place in an inpatient practice setting. Students will be exposed to adult patients with a variety of disease states, and participate in other institutional activities related to clinical pharmacy services.

SUMMER SEMESTER

PHRD 8045 Advanced Pharmacy Practice Experience – Medication Therapy Management 3.0 cr.

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Three-week rotation; 40 hrs weekly. This experience will take place in a community pharmacy practice setting. Students will participate in medication therapy reviews, pharmacotherapy consults, anticoagulation management, and other clinical services that optimize therapeutic outcomes for individual patients.

PHRD 8055 Advanced Pharmacy Practice Experience – Elective 6.0 cr.

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Six week rotation; 40 hrs weekly. This experience will take place in various practice settings. Students may participate in various activities that focus on medication-related problems dealing with various populations, with or without direct patient contact.

PHRD 8065 Advanced Pharmacy Practice Experience – Ambulatory Care 6.0 cr.

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Six week rotation; 40 hrs weekly. This experience will take place in an ambulatory care, multidisciplinary practice setting. Practice sites may include hospital-based clinics, physician group practices, and community or public health clinics that provide health care directly to patients.

PHRD 8075 Advanced Pharmacy Practice Experience – Community 6.0 cr.

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Six week rotation; 40 hrs weekly. This experience will take place in a community pharmacy practice setting. Practice sites include independent, large chain or retail pharmacies that provide a variety of services, including administration of immunizations and health/wellness screenings.

PHRD 8085 Advanced Pharmacy Practice Experience – Hospital/Health-System Pharmacy 6.0 cr.

Megan Thompson, Pharm.D. (Fall, Spring, Summer) Prerequisite – P4 status

Six week rotation; 40 hrs weekly. This experience will take place in an inpatient practice setting. Students will be exposed to adult patients with a variety of disease states, and participate in other institutional activities related to clinical pharmacy services.