

# PHARMACY DOCTORATE (PRDZ)

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## PRDZ 5000 - Interprofessional Collaborative Practice (IPCP) (1 Credit)

A one-semester course required of health professions students from the dental, medical, nursing, pharmacy, physical therapy, and physician assistant programs on the Anschutz Medical Campus. This course develops core competencies in teamwork & collaboration for incoming health professions students. Students will learn in Interprofessional Teams (IP) teams coached by IPE faculty, develop essential communication skills and processes for simultaneous and sequential teams, and provide feedback on individual and team performance to improve IP collaboration. Students will engage with foundational knowledge and basic practical teaming and communication skills which contribute to patient care and team development. Through team activities, discussion boards, didactic modules and clinical cases, students will explore the importance of teamwork, collaboration and quality improvement for patient centered care delivery, patient, and health care system outcomes. Students will reflect on professional roles/responsibilities and demonstrate interprofessional collaboration. The course takes place over 7 modules in the spring that involve individual, and team paced active learning. Each module includes approximately 2.5 hours of individual or team-paced activities. Both learners and teams are assessed during the sessions. Canvas is used for course content, communication, and administration.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

## PRDZ 5010 - IPPE- Community (80 hours) (2 Credits)

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. PRDZ 5965 Patient-Centered Communication is a pre-requisite to this course. Prerequisite: PRDZ 5965. Only open to ITPD students.

Grading Basis: Letter Grade with IP

Typically Offered: Spring, Summer.

## PRDZ 5055 - Pharmacy Practice Fundamentals and Drug Information (4 Credits)

The course provides students with the 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 in the context of the history of pharmacy and contemporary pharmacy practice.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 5075 - Self-Care and Nonprescription Medications (4 Credits)

This 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. This course is a pre-requisite to PRDZ 5965- Patient-Centered Communication.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 5965 - Patient-Centered Communication (4 Credits)

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. This course will include a live, on-campus evaluation period. PRDZ 5075- Pharmacotherapy: Self-Care is a pre-requisite to this course; PRDZ 5985- Pharmacotherapy 1 is a co-requisite.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

## PRDZ 5985 - Pharmacotherapy 1: Pulmonary, OBGYN, Urology, ED, Otic, Ophthalmology, Dermatology (4 Credits)

This course is part of a 7-course series that 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: pulmonology, OBGYN, ED, urology, dermatology, ophthalmology, and otic diseases. This course will include a live, on-campus evaluation period. Prerequisites: PRDZ 5965- Patient-Centered Communication is a co-requisite to the course.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

## PRDZ 6000 - Interprofessional Healthcare Ethics and Health Equity (IPHE) (1 Credit)

A one-semester course required of health professions students from the dental, medical, nursing, pharmacy, physical therapy, and physician assistant programs on the Anschutz Medical Campus. This course develops foundational knowledge and basic practical skills to identify, analyze, and resolve ethical and health equity issues in clinical practice. This course integrates interprofessional collaboration and teamwork to teach students ethical theory and reasoning, professional ethics and its historical origins, and approaches to health care decision-making. Through team activities, discussion boards, didactic modules and clinical cases, students will practice navigating ethical dilemmas and identifying social, structural, and systemic issues that impact healthcare access, delivery of care, and patient outcomes. Students will reflect on professional roles and responsibilities and demonstrate interprofessional collaboration.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 6015 - Clinical Pharmacokinetics (3 Credits)

The influence of physiological and pathophysiological factors on drug levels is considered. Knowledge gained allows students to calculate the appropriate dosing of drugs in patients and anticipate how drug doses should be adjusted in disease and the presence of other drugs.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 6065 - Evidence-Based Medicine and Literature Evaluation (3 Credits)

An introduction and stepwise 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.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 6085 - Pharmacotherapy 2: Cardiology (5 Credits)

This course is part of a 7-course series that 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.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 6095 - Pharmacotherapy 3: Endocrinology, Renal (4 Credits)

This course is part of a 7-course series that 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 and renal.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 6096 - Pharmacotherapy: Endocrinology (3 Credits)

This course is part of a 7-course series that 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. Restrictions: Open only to ITPD students.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 6910 - IPPE- Health System (80 hours) (2 Credits)

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. Restriction: Open to ITPD students only.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Spring, Summer.

## PRDZ 6945 - Public Health and Health Outcomes (3 Credits)

Introduces students to health care delivery systems and discusses the social, political, and 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, and public health policy.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

## PRDZ 6965 - Clinical Problem-Solving Skills (2 Credits)

This course builds upon the principles and skills from PRDZ 5055/6065 and includes application inside and outside the classroom of drug information, effective search strategies and literature evaluation, critical appraisal of scientific literature, and applying evidence in clinical practice.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

## PRDZ 6985 - Pharmacotherapy 4: Infectious Diseases (5 Credits)

This course is part of a 7-course series that 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 disease.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

## PRDZ 6995 - Pharmacotherapy 5: Psychiatry, Neurology (4 Credits)

This course is part of a 7-course series that 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 disease.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

## PRDZ 7015 - Seminar Research (1 Credit)

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.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Summer.

## PRDZ 7025 - Pharmacogenomics (2 Credits)

The 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.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 7055 - Pharmacy Management (2 Credits)

This course introduces 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.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 7085 - PT 6: Immunology, GI, Rheumatology, Transplantation, Osteoporosis (4 Credits)

This course is part of a 7-course series that 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: Immunology, Rheum/transplant/osteoporosis, and GI.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 7095 - PT 7: Oncology (3 Credits)

This course is part of a 7-course series that 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: Oncology

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

## PRDZ 7096 - Pharmacotherapy: Transplant (1 Credit)

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: Transplant Restrictions: Open to ITPD students only.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

**PRDZ 7331 - Pharmacotherapy- Pediatrics Elective (1 Credit)**

Course combines pathophysiology, advanced pharmacotherapeutics management, patient assessment, & professional skills development for disorders and issues of pediatric patients. Course may include case-based, team-based learning to provide opportunities for the application of clinical skills & knowledge in providing patient care.

Grading Basis: Letter Grade with IP

Typically Offered: Summer.

**PRDZ 7765 - Advanced Diabetes Management - 1 (1 Credit)**

This elective course focuses on advanced diabetes management including the utilization of technology and digital health tools. This course is specifically tailored to address pattern management and complex diabetes cases. Learners will engage in comprehensive didactic approach of 12 individual modules, complex patient cases, and exposure to diabetes technology and digital health tools to successfully optimize diabetes care and make clinical decisions. We will expand upon foundational diabetes and communication knowledge, skills, and abilities.

Grading Basis: Letter Grade with IP

Typically Offered: Summer.

**PRDZ 7775 - Integrative Health and Medicine (1 Credit)**

This course is designed to develop a broad knowledge base in the field of Integrated Health and Medicine. This course will cover common vitamins and minerals, herbal products, bio-identical hormones, core domains, and discussions of regulatory issues.

Grading Basis: Letter Grade with IP

Typically Offered: Summer.

**PRDZ 7808 - Pharmaceutical Industry Fundamentals (2 Credits)**

The 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.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

**PRDZ 7828 - Advanced Diabetes Management (2 Credits)**

This elective course focuses on advanced diabetes management and the utilization of technology and digital health tools. Learners will engage in hands-on, simulated experiences with diabetes technology and digital health tools to successfully optimize diabetes care and make clinical decisions remotely. We will expand upon foundational diabetes and communication knowledge, skills, and abilities established from the completion of PRDZ 5965 Patient-Centered Communication and PRDZ 6095 Pharmacotherapy 3. Prerequisites: PRDZ 5965 and PRDZ 6095

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

**PRDZ 7830 - Infectious Diseases (2 Credits)**

This course will serve as a review of infectious diseases fundamentals including clinical microbiology, antimicrobial spectrum, PK/PD, ADRs, and DDIs. This course will also cover new ID content about antimicrobial stewardship principles, antibiotic resistance, and management of select infectious diseases. Recent advances in pharmacotherapy, patient-specific management strategies, and controversial issues will be included and emphasized. This course meets the requirement for an advanced elective course. Prerequisite/Co-requisite: PRDO or PRDM 7730.

Grading Basis: Letter Grade with IP

Typically Offered: Spring, Summer.

**PRDZ 7835 - Advanced Cardiovascular Therapy (2 Credits)**

This course will address the pharmacology and appropriate clinical use of drug therapy for selected acute and chronic cardiovascular disorders. Recent advances in pharmacotherapy, patient-specific management strategies, and controversial issues will be included and emphasized. This course meets the requirement for an advanced elective course.

Grading Basis: Letter Grade with IP

Typically Offered: Spring, Summer.

**PRDZ 7842 - Medical Use of Cannabis (2 Credits)**

The course will address the pharmacology and appropriate medical use of cannabis used in the treatment and management of selected disease states. The course will also focus on the pharmacokinetics, pharmacodynamics, legal aspects, special populations, and patient information (safety) of cannabis. This course meets the requirement for an advanced elective course.

Grading Basis: Letter Grade with IP

Typically Offered: Fall.

**PRDZ 7850 - Geriatric Pharmacotherapy (2 Credits)**

This course is an interdisciplinary course that expands on the curriculum of the SSPPS and provides practical instruction for pharmacists in geriatric care. This course is intended to provide the student with a glimpse into the interdisciplinary care model for geriatric patients, as well as common medical, psychological, and social issues encountered when caring for older adults. It is also intended to provide students with opportunities to further develop problem-solving skills for use in an interdisciplinary setting. This course meets the requirement for an advanced elective course.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

**PRDZ 7852 - Clinical Capstone 2 (2.5 Credits)**

This course reviews and assesses a broad range of skills necessary for current and future pharmacy practice. It builds on skills gained during the 3.5 credit clinical capstone course (PRDO 7851) and ties experience gained in the Advanced Introductory Pharmacy Practice Experience (AIPPE) for further peer and faculty feedback, mentorship and assessment. Prerequisite: Open only to ITPD students.

Grading Basis: Letter Grade with IP

Typically Offered: Summer.

**PRDZ 7860 - Integrative Health and Medicine (2 Credits)**

This course is designed to develop a broad knowledge base in the field of Integrated Health and Medicine. This course will cover common vitamins and minerals, herbal products, bio-identical hormones, core domains, and discussions of regulatory issues.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Summer.

**PRDZ 7870 - Pediatric Pharmacotherapy (2 Credits)**

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. This course meets the requirement for an advanced elective course. This course meets the requirement for an advanced elective course.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Summer.

PRDZ 7882 - Drugs of Abuse (2 Credits)

This course will explain the pharmacological, physical, and psychological effects of drugs of abuse on the body relevant to real-world pharmacy practice. The course aims to develop clinical skills for use in emergency situations, proper prescribing of drugs of abuse, and understanding of the process of addiction/abuse in order to identify and mitigate potential harm. This course meets the requirement for an advanced elective course.

Grading Basis: Letter Grade with IP

Typically Offered: Spring, Summer.

PRDZ 7885 - Acute Care Pharmacotherapy (2 Credits)

This course will address the 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 management of these acute disorders. Recent advances in pharmacotherapy, patient-specific management strategies, and controversial issues will be included and emphasized. This course meets the requirement for an advanced elective course.

Grading Basis: Letter Grade with IP

Typically Offered: Spring, Summer.

PRDZ 7905 - Advanced IPPE (240 hours) (6 Credits)

Students are placed on 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. This course must be taken in the same semester (just prior to) PRDZ 7995- Clinical Capstone. Prerequisite: Open to ITPD students only.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Spring.

PRDZ 7945 - Pharmacy Law and Regulatory Standards (3 Credits)

Legal and ethical issues in US pharmacy practice are presented in this course in lectures, case studies, and discussion group formats.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

PRDZ 7995 - Clinical Capstone (6 Credits)

The 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 hold students accountable for prior learning in an integrated manner using complex patient scenarios. This course builds on PRDZ 7905- Advanced Introductory Pharmacy Practice Experience. Therefore, completion of PRDZ 7905, just prior to it, is a pre-requisite to it. Pre-requisites to this course include all Pharmacotherapy courses and PRDZ 6965 Clinical Problem-Solving Skills. Prerequisites: PRDZ 7905, PTDZ 6965, PRDZ 5985, PRDZ 6085, PRDZ 6095 (or 6096), PRDZ 6985, PRDZ 6995, PRDZ 7085 (or 7086), PRDZ 7095.

Grading Basis: Letter Grade with IP

Typically Offered: Spring.

PRDZ 8055 - APPE- Elective (240 hours) (6 Credits)

Six-week rotation; 40 hours 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.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Spring, Summer.

PRDZ 8056 - APPE- Elective International (240 hours) (6 Credits)

Six-week rotation; 40 hours weekly. This pharmacy practice experience is an opportunity for students to train in various international clinical practice environments.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Spring, Summer.

PRDZ 8065 - APPE- Ambulatory Care (240 hours) (6 Credits)

Six-week rotation; 40 hours 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.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Spring, Summer.

PRDZ 8075 - APPE- Community (240 hours) (6 Credits)

Six-week rotation; 40 hours 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.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Spring, Summer.

PRDZ 8085 - APPE Hospital/Health-System (240 hours) (6 Credits)

Six-week rotation; 40 hours 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. Section 1 is Health System- Institutional and Section 2 is Health System- Acute Care/Gen Med.

Grading Basis: Letter Grade with IP

Typically Offered: Fall, Spring, Summer.