

# High Point University School of Pharmacy Course Descriptions

# P2 Fall Courses

**PBS 7500, Research Design and Analysis** (3 credits, graded A, B, C, F) The course is designed to introduce the scientific methodology, research design, statistical concepts and other metrics in pharmaceutical research. Topics will include research philosophy, biomedical ethics, clinical research design, descriptive and inferential statistical methodology, and assessment of clinical research literature.

**PBS 7510, Integrated Pharmaceutical Sciences I** (4 credits, graded A, B, C, F), Prerequisites: PBS 7300, Medicinal Chemistry & Pharmacology and PBS 7020, Physiology of Wellness and Disease

The course will provide the physiological basis, medicinal chemistry and pharmacology of drugs used in the treatment diseases that are covered from a treatment perspective in Pharmacotherapy 1. Topics will include pathophysiology, etiology and risk factors, drug targets, mechanisms of action, as well as medication and side effects of the major drug classes used in treating the respective disorders and disease states. General areas to be covered include cardiovascular, renal dysfunction, diabetes and metabolic syndrome, contraception, pregnancy and menopause as well as incontinence.

**PCS 7500, Clinical Skills Lab III** (1 credit, graded A, B, C, F), Prerequisite: PCS 7320, Clinical Skills Lab II

This lab will utilize standardized clients, case vignettes, and hands-on activities to engage students in the management of patients with disease states and topics covered in Ambulatory Care Skills II and Pharmacotherapy I. Standardized client interactions simulating different healthcare venues (e.g., inpatient hospital, ambulatory clinic, emergency room, community pharmacy, etc.) and case vignettes will be used to enable students to master key patient care skills, such as basic physical assessment, patient interviews, review of medical records, performance of laboratory tests, interpretation of laboratory results, preparing consult notes, filling patient prescriptions, and counseling patients as needed. An emphasis will be placed on the top 200 drugs.

PCS 7520 Health Care Systems I (3 credit, graded A, B, C, F)

Students will become familiar with participants, organizations, and settings, which are involved in the provision, payment, and regulation of health-related services.

**PCS 7530, Ambulatory Care Skills II** (3 credit, graded A, B, C, F), Prerequisite: PCS 7310 Ambulatory Care Skills I

This course is an introduction to the concepts of community pharmacy practice and creation of specialty Ambulatory Care services with an emphasis on the top 200 drugs.

### PCS 7540, Pharmacotherapy I (4 credits, graded A, B, C, F)

Students will learn the therapeutic management of several disease states including cardiovascular disorders, renal disorders, endocrine disorders, and disorders related to men's and women's health. Material learned in this course will be complemented by practice in Clinical Skills Lab II and interleaved with content covered in the Integrated Pharmaceutical Sciences I course. In this course, lecture, case studies, team-based learning, and cross-teaching by basic sciences faculty will be used to develop clinical decision-making strategies that students will use in their practical experiences.

**PEX 7510, Longitudinal Patient Experience II** (0.5 credits, Pass/Fail) Continued from part I, students will continue with assigned patients who they will intermittently follow during their first three years of school. Selected activities and

reflection pieces will be developed to encourage a complete perspective of patient diseases, drug and non-drug needs and improve their personal communication skills. Also students will seek perspectives of other patient caregivers and healthcare providers

## P2 Spring Courses

**PBS 7800, Integrated Pharmaceutical Sciences II** (4 credits, graded A, B, C, F) The course will provide the physiological basis, medicinal chemistry and pharmacology of drugs used in the treatment diseases that are covered from a treatment perspective in Pharmacotherapy 2. Topics will include pathophysiology, etiology and risk factors, drug targets, mechanisms of action, medication and side effects of the majordrug

classes used in treating the respective disorders and disease states. General areas to be covered include pulmonary and respiratory disease, infectious diseases, fungal infections, HIV, hepatic and gastrointestinal disorders.

### PBS 7810, Natural Products (3 credits, graded A, B, C, F)

Nonprescription natural products such as vitamins, minerals, and herbals, will be examined from a chemistry, pharmacology, toxicology, and therapeutics standpoint to promote a comprehensive understanding of their product quality and manufacturing oversight, actions, safety, and evidence for efficacy.

### PCS 7800, Clinical Skills Lab IV (1 credit, graded A, B, C, F)

This lab will utilize standardized clients, case vignettes, and hands-on activities to engage students in the management of patients with disease states covered in Pharmacotherapy II. Standardized client interactions simulating different healthcare venues (e.g., inpatient hospital, ambulatory clinic, emergency room, community pharmacy, etc.) and case vignettes will be used to enable students to master key

patient care skills, such as physical assessment, patient interviews, review of medical records, performance of tests when needed, interpretation of laboratory results, preparing consult notes, filling patient prescriptions, and counseling patients as needed.

# PCS 7810, Pharmacoeconomics (2 credits, graded A, B, C, F)

Calculation of economic value in relationship to patient benefits for different drug interventions will be performed using multiple methods. Reading and critiquing articles about pharmacoeconomics will be practiced.

## PCS 7820, Health Care Systems II (2 credits, graded A, B, C, F)

Drug errors, drug interactions, and systems to prevent drug-related problems will be reviewed. Multiple drug-induced diseases will be discussed using case-based considerations for their proper recognition, work-up, and intervention.

### PCS 7840, Pharmacotherapy II (4 credits, graded A, B, C, F)

Students will learn the therapeutic management of several disease states including respiratory diseases, infectious diseases, and disorders of the gastrointestinal system. Material learned in this course will be complemented by practice in Clinical Skills Lab III, and this course will be interleaved with content covered in the Integrated Pharmaceutical Sciences II and Medicinal Chemistry of Natural Products courses. In this course, lecture, case studies, team-based learning, and cross-teaching by basic sciences faculty will be used to develop clinical decision-making strategies that students will use in their practical experiences.

# **PEX 7830, Longitudinal Patient Experience III** (0.5 credits, Pass/Fail)

Continued from part II, students will continue with assigned patients who they will intermittently follow during their first 3 years of school. Selected activities and reflection pieces will be developed to encourage a complete perspective of patient diseases, drug and non-drug needs and improve their personal communication skills. Also students will seek perspectives of other patient caregivers and healthcare providers.

### P2 Summer Courses

# PEX 7800 Introductory Pharmacy Practice Experience (IPPE) in Hospital Pharmacy

(4 credits, graded A, B, C, F) Prerequisite: PCS 7820 Health Care Systems II Students will be assigned to complete a four-week summer rotation in an institutional pharmacy setting, approved by the Office of Experiential Education. Under the supervision of an HPU Preceptor, students will complete a required student workbook with assignments focused in the following areas: communication and professionalism,

drug distribution process, drug info research, prep IV's (USP 797), medication histories, controlled substances, ADE/ADR reporting, functions of committees, introduction to The Joint Commission & Centers for Medicare and Medicaid Services, medication safety strategies, basic calculations, electronic medical record, and USP Compounding Standards