

# PHA - PHARMACY

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## **PHA 4105 Pathophysiology 1 Cr. 3**

Advanced pathophysiologic concepts affecting the adult human using a research-based, system-focused approach, including etiology, pathogenesis and clinical manifestations of commonly found/seen altered health states. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

**PHA 4125 Drug Literature Evaluation and Foundations of Research Cr. 3**  
Critical evaluation of the medical literature and provision of foundational research skills. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

## **PHA 4205 Pathophysiology II Cr. 2**

Advanced pathophysiologic concepts affecting the adult human using a research-based, system-focused approach, including etiology, pathogenesis and clinical manifestations of commonly found/seen altered health states. Offered Winter.

**Prerequisite:** PHA 4105

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

## **PHA 4225 Principles of Pharmacotherapy I: Respiratory, Gastroenterology, Allergy, Ophthalmology Cr. 4**

Principles of medicinal chemistry, pharmacology, and therapeutics as applied to the treatment of gastroenterologic, pulmonary, ophthalmologic, and allergic disorders, and basic self-care. Offered Winter.

**Prerequisite:** PHA 4105

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

**Course Material Fees:** \$70

## **PHA 4235 Pharmacotherapeutic Problem Solving I: Respiratory, Gastroenterology, Allergy, Ophthalmology Cr. 2**

Problem-based learning focusing on pathophysiology, pharmacology, medicinal chemistry and pharmacotherapeutics of respiratory, gastroenterologic, allergic, and ophthalmologic disorders, and basic self-care. Offered Winter.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

**Course Material Fees:** \$85

## **PHA 4395 Research Scholars: Research Development Cr. 2**

Development of basic foundations of research practices for students pursuing the Research Scholars path. Offered Spring/Summer.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

## **PHA 5110 Pharmacogenomics Cr. 2**

Principles and applications of human genetics and genomics in drug therapy optimization, patient care, and counseling. Offered Spring/Summer.

**Restriction(s):** Enrollment limited to students with a class of PharmD Yr 2 or PharmD Yr 3; enrollment is limited to Professional level students.

## **PHA 5115 Principles of Pharmacotherapy II: Cardiology, Nephrology Cr. 5**

Principles of medicinal chemistry, pharmacology, and therapeutics as applied to the treatment of cardiovascular and renal disease. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

## **PHA 5125 Principles of Pharmacotherapy III: Endocrinology, Gynecology, Urology Cr. 4**

Principles of medicinal chemistry, pharmacology, and therapeutics as applied to the treatment of endocrinologic, gynecologic, and urologic disorders. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

## **PHA 5135 Pharmacotherapeutic Problem Solving II :Nephrology, Cardiology, Endocrinology, Gynecology, Urology Cr. 2**

Problem-based learning focusing on pathophysiology, pharmacology, medicinal chemistry and pharmacotherapeutics of nephrologic, cardiologic, endocrinologic, and gynecologic conditions. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

## **PHA 5195 Research Scholars: Research Conduct Elective Cr. 1-4**

Conducting research project for students pursuing the Research Scholars path. Offered Every Term.

**Prerequisite:** PHA 4395

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

**Repeatable for 4 Credits**

## **PHA 5215 Principles of Pharmacotherapy IV: Infectious Diseases Cr. 4**

The chemistry, pharmacology, and toxicology of anti-infective agents and the pathophysiology, microbiology, and therapeutics of infectious diseases. Offered Winter.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

## **PHA 5225 Principles of Pharmacotherapy V: Neurology, Psychiatry Cr. 4**

Medicinal chemistry, pharmacology and therapeutics of neurologic and psychiatric disorders. Offered Winter.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

**Course Material Fees:** \$70

## **PHA 5235 Pharmacotherapeutic Problem Solving III: Infectious Diseases, Neurology, Psychiatry Cr. 2**

Problem-based learning focusing on pathophysiology, pharmacology, medicinal chemistry and pharmacotherapeutics of infectious, neurologic, and psychiatric diseases. Offered Winter.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

**Course Material Fees:** \$85

## **PHA 5280 Principles of Pharmacotherapy VIII Cr. 2-3**

Pharmacotherapeutic principles of special populations, men's and women's health, patient problem solving. Offered Winter.

**Corequisite:** PHA 5275

**Restriction(s):** Enrollment is limited to Professional level students; enrollment limited to students in the Pharmacy and Health Sciences.

## **PHA 6125 Principles of Pharmacotherapy VI: Oncology, Advanced Immunology Cr. 3**

Principles of medicinal chemistry, pharmacology, and therapeutics as applied to the treatment of oncologic and immunologic disorders Offered Fall.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

**Course Material Fees:** \$70

## **PHA 6135 Pharmacotherapeutic Problem Solving IV: Oncology and Advanced Pharmacotherapeutics Cr. 3**

Problem-based learning focusing on pathophysiology, pharmacology, medicinal chemistry and pharmacotherapeutics of neoplastic disorders and advanced pharmacotherapeutics. Offered Fall.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

**PHA 6235 Pharmacotherapeutic Problem Solving V: Drug Induced Diseases Cr. 2**

Problem-based learning focusing on pathophysiology, pharmacology, medicinal chemistry, and pharmacotherapeutics of drug-induced diseases. Offered Winter.

**Restriction(s):** Enrollment limited to students in the Doctor of Pharmacy program.

**Course Material Fees:** \$85