

Pharmacy (PHMD)

Courses

PHMD 200A. Interprofessional Clinical Foundations I. 5 Units.

The first course in a four-part series that covers interprofessional patient communication, medical interviewing, physical examination, and health promotion. Direct instruction in professionalism, diversity, social determinants of health, kindness, mindfulness, well-being, epidemiology, and biostatistics.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 200B. Interprofessional Clinical Foundations II. 2 Units.

The second course in four-part series that covers interprofessional communication, medical interviewing, physical examination, and health promotion. Direct instruction in professionalism, diversity, social determinants of health, kindness, mindfulness, well-being, epidemiology, and biostatistics.

Prerequisite: PHMD 200A

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 200C. Interprofessional Clinical Foundations III. 2 Units.

The third course in a four-part series that covers interprofessional communication, medical interviewing, physical examination, and health promotion. Direct instruction in professionalism, diversity, social determinants of health, kindness, mindfulness, well-being, epidemiology, and biostatistics.

Prerequisite: PHMD 200A and PHMD 200B

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 200D. Interprofessional Clinical Foundations IV. 2 Units.

The fourth course in a four-part series that covers interprofessional communication, medical interviewing, physical examination, and health promotion. Direct instruction in professionalism, diversity, social determinants of health, kindness, mindfulness, well-being, epidemiology, and biostatistics.

Prerequisite: PHMD 200A and PHMD 200B and PHMD 200C

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 201A. Principles of Pharmacy Practice I. 2 Units.

The first of a four-part series that covers the function and role of the health care team, Pharmacist Patient Care Process, immunization certification, communication and documentation, informatics, patient safety, interviewing, active listening, management/leadership, careers, resiliency, and student wellness.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 201B. Principles of Pharmacy Practice II. 2 Units.

The second of a four-part series that covers the function and roles of the health care team, Pharmacist Patient Care Process, immunization certification, communication and documentation, informatics, patient safety, interviewing, active listening, management/leadership, careers, resiliency, and student wellness.

Prerequisite: PHMD 201A

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 201C. Principles of Pharmacy Practice III. 2 Units.

The third of a four-part series that covers the function and role of the health care team, Pharmacist Patient Care Process, immunization certification, communication and documentation, informatics, patient safety, interviewing, active listening, management/leadership, careers, resiliency, and student wellness.

Prerequisite: PHMD 201A and PHMD 201B

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 201D. Principles of Pharmacy Practice IV. 2 Units.

The fourth of a four-part series that covers the function and role of the health care team, Pharmacist Patient Care Process, immunization certification, communication and documentation, informatics, patient safety, interviewing, active listening, management/leadership, careers, resiliency, and student wellness.

Prerequisite: PHMD 201A and PHMD 201B and PHMD 201C

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 202A. Self Care I: Conventional and Complementary. 2 Units.

Educates pharmacy students about healthy lifestyle choices, the importance of mental and physical health, and self-care. Provides students with methods and techniques for dealing with the stressors of a professional educational environment and life challenges.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 202B. Self Care II: Conventional and Complementary. 2 Units.

The study of nonprescription products, complementary/alternative medicine, and non-pharmacological interventions for select self-treatable medical conditions commonly encountered by the pharmacist. Emphasis on the pharmacist's consultant role in product selection and non-pharmacological recommendations.

Prerequisite: PHMD 202A

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 202C. Self Care III: Conventional and Complementary. 2 Units.

Relates to patients' ability to care for themselves with emphasis on the pharmacist's consultant role and continues to explore self-treatable medical conditions commonly encountered by pharmacists, including non-pharmacologic interventions, nonprescription medications, and complementary/alternative products to treat them.

Prerequisite: PHMD 202A and PHMD 202B

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 203A. Pharmacotherapy Principles to Practice I: Central Nervous System. 8 Units.

Integrates principles of biomedical and pharmaceutical sciences with evidence-based traditional and non-traditional therapies for management and prevention of disease. Topics include clinical chemistry, clinical toxicology, interprofessional health care, and public health. Covers the central nervous system.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 203B. Pharmacotherapy Principles to Practice II: Immunology. 4 Units.

Integrates principles of biomedical and pharmaceutical sciences with evidence-based traditional and non-traditional therapies for management and prevention of disease. Topics include clinical chemistry, clinical toxicology, interprofessional health care, and public health. Covers the immune system.

Prerequisite: PHMD 203A

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 203C. Pharmacotherapy - Principles to Practice III: Cardiovascular and Respiratory Systems. 7 Units.

Integrates principles of biomedical and pharmaceutical sciences with evidence-based traditional and non-traditional therapies for management and prevention of disease. Topics include clinical chemistry, clinical toxicology, interprofessional health care, and public health. Covers the cardiovascular and respiratory systems.

Prerequisite: PHMD 203A and PHMD 203B

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 203D. Pharmacotherapy - Principles to Practice IV: Endocrine System. 7 Units.

Integrates principles of biomedical and pharmaceutical sciences with evidence-based traditional and non-traditional therapies for management and prevention of disease. Topics include clinical chemistry, clinical toxicology, interprofessional health care, and public health. Covers the endocrine system.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 203E. Pharmacotherapy - Principles to Practice V: Gastrointestinal System, Dermatologic, and Ophthalmologic Disorders. 6 Units.

Integrates principles of biomedical and pharmaceutical sciences with evidence-based traditional and non-traditional therapies for management and prevention of disease. Topics include clinical chemistry, clinical toxicology, interprofessional health care, and public health. Covers gastrointestinal, dermatologic, and ophthalmologic disorders.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 203F. Pharmacotherapy - Principles to Practice VI: Infectious Diseases. 5 Units.

Integrates principles of biomedical and pharmaceutical sciences with evidence-based traditional and non-traditional therapies for management and prevention of disease. Topics include clinical chemistry, clinical toxicology, interprofessional health care, and public health. Covers gastrointestinal, dermatologic, and ophthalmologic disorders.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 203G. Pharmacotherapy - Principles to Practice VII: Hematology and Oncologic Disorders. 6 Units.

Integrates principles of biomedical and pharmaceutical sciences with evidence-based traditional and non-traditional therapies for management and prevention of disease. Topics include clinical chemistry, clinical toxicology, interprofessional health care, and public health. Covers hematology and oncologic disorders.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 203H. Pharmacotherapy - Principles to Practice VIII: Special Population and Nutritional Disorders. 5 Units.

Integrates principles of biomedical and pharmaceutical sciences with evidence-based traditional and non-traditional therapies for management and prevention of disease. Topics include clinical chemistry, clinical toxicology, interprofessional health care, and public health. Covers special population and nutritional disorders.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 204A. Information Analytics and Numeracy I: Biostatistics. 2 Units.

Exposure to basic statistics and techniques that are commonly found in the medical and pharmacy literature, covering descriptive and inferential statistics. Students learn to choose the most appropriate statistical parametric and non-parametric tests and interpret findings from the literature.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 204B. Information Analytics and Numeracy II: Drug Information, Research Methods, and Literature Analysis. 3 Units.

Addresses development of knowledge, skills, and attitudes required for biomedical inquiry and discovery, including methods for data retrieval, analysis, interpretation, and synthesis.

Prerequisite: PHMD 204A

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 204C. Information Analytics and Numeracy III: Epidemiology. 2 Units.

Covers distribution of disease and health in groups of people and the factors that influence the distribution, including evaluation of therapeutic and diagnostic treatments and delivery of health care services.

Prerequisite: PHMD 204A and PHMD 204B

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 205A. Molecular Basis of Health and Disease I: Microbiology and Immunology. 3 Units.

Principles of medical microbiology, immunology, virology, and parasitology. Introduction to classification, morphology, and physiology of microorganisms, particularly those that cause human pathology - bacteria, viruses, fungi, protozoans, parasite, and worms - and the body's immune response.

Prerequisite: PHMD 213 and PHMD 220

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 205B. Molecular Basis of Health and Disease II: Microbiology and Immunology . 3 Units.

Principles of medical microbiology, immunology, virology, and parasitology. Introduction to classification, morphology, and physiology of microorganisms, particularly those that cause human pathology - bacteria, viruses, fungi, protozoans, parasite, and worms - and the body's immune response.

Prerequisite: PHMD 213 and PHMD 220

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 205C. Molecular Basis of Health and Disease III: Clinical Chemistry. 2 Units.

Emphasis on normal human physiology and pathology as it related to clinical chemistry and assessment of disease states with the context of the Pharmacist Patient Care Process. Alterations of clinical chemistry results due to drug therapy are covered.

Prerequisite: PHMD 205A and PHMD 205B

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 210. Principles of Pharmacology. 3 Units.

Provides an overview of the basic principles of pharmacology, covering pharmacodynamics - effects of drugs on the body - and pharmacokinetics - the process by which a drug is absorbed, distributed, metabolized, and excreted by the body.

Prerequisite: PHMD 220 and PHMD 277A and PHMD 277B

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 211. Principles of Public Health. 4 Units.

Covers the framework, principles, and core responsibilities of public health research and practice from multidisciplinary perspectives. It also provides the necessary foundation for further studies using crosscutting approaches essential for public health practice.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

Concurrent with PUBH 200.

PHMD 212. Principles of Pharmacogenomics. 2 Units.

Walks students through the basics of genetics and genomics. Particular emphasis is placed on the use of genetics or genetic testing to assist in patient treatment regimens and evaluation of disease.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 213. Pharmaceutical Biochemistry. 4 Units.

Topics include the biological, chemical and cellular roles of carbohydrates, lipids, proteins, nucleic acids, hormones, enzymes and vitamins. In addition, the chemical and cellular basis of digestion, intermediary metabolism, biological oxidation and metabolic antagonism are discussed.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 214. Pharmacy Law and Ethics. 3 Units.

An introduction to California and federal legal requirements that impact pharmacy practice, emphasizing the legal and ethical principles applied by pharmacists in their decision-making. Explores approaches for resolving ethical dilemmas in patient care.

Grading Option: Honors-Pass-Fail.

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PHMD 215. Health Policy and Pharmacoeconomics. 3 Units.

Introduces students to the organization, financing, and delivery of health care services in the U.S. The relationship of providers, patients, payers, etc., are analyzed. Management and research principles utilized to manage drug therapy are introduced.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 216. Clinical Toxicology. 2 Units.

Fundamentals of pharmacology and mechanisms of action are reinforced and applied to learn the clinical effects of acute/chronic exposure derived from environmental, dietary, occupational and pharmaceutical sources. Students focus on information literacy skills and clinical management of poisonings.

Prerequisite: PHMD 210

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 220. Medical Physiology with Anatomic Correlates. 5 Units.

Concepts of physiology and mechanisms of body function at various levels of organization from cellular to organ systems. Emphasis on quantitative understanding of various body processes. Human anatomy is integrated with physiological concepts. Anatomic-physiologic relationships facilitated through virtual labs.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 274A. Pharmaceutics I. 4 Units.

The first in a foundational series designed to develop an understanding of the science behind drug formulation, mechanisms, pharmacokinetics and interconnections with the Pharmacist Patient Care Process.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 274B. Pharmaceutics II. 4 Units.

The second course in a foundational series designed to develop an understanding of the science behind drug formulation, mechanisms, pharmacokinetics and interconnections with the pharmacist patient care process. Topics include drug substances, dosage forms, and therapeutic effects. Includes laboratory.

Prerequisite: PHMD 274A

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 274C. Pharmaceutics III . 5 Units.

The final course in a foundational series designed to develop an understanding of the science behind drug formulation, mechanisms, pharmacokinetics, and interconnections with the Pharmacist Patient Care Process. In laboratory, students perform pharmacokinetic modeling, drug screening, and comprehensive therapeutic efficacy.

Prerequisite: PHMD 274A and PHMD 274B

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 277A. Medicinal Chemistry I. 4 Units.

Application of organic chemistry, biochemistry, molecular biology, physical chemistry, pharmacology, and physiology to understand the theory and mechanics of modern day medicinal chemistry. Topics include receptor-protein structure, dynamics, and interactions; drug development and design; and pharmacodynamics, and pharmacokinetics.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 277B. Medicinal Chemistry II. 6 Units.

Walks students through medicinal chemistry, broadly defined. Students utilize the knowledge gained in organic chemistry, biochemistry, molecular biology, physical chemistry, pharmacology and physiology in an integrated fashion as applied to modern medicinal chemistry. Continuation of Medicinal Chemistry I.

Prerequisite: PHMD 277A

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 280A. Scholarly Project I. 1 Unit.

Provides students an opportunity to develop independent thinking, with particular focus on maturing analytical skills. Students are encouraged to develop an independent project, with a mentor, to study pharmacy-related aspects of multiple areas. First phase identifies project focus.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 280B. Scholarly Project II. 1 Unit.

Provides students an opportunity to develop independent thinking, with particular focus on maturing analytical skills. Students develop an independent project, with a mentor, to study pharmacy-related aspects of multiple areas. Phase 2 focuses on final evaluation of project.

Grading Option: Honors-Pass-Fail.

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PHMD 290. Doctor of Pharmacy Epilogue. 2 Units.

Reinforces and assesses student pharmacist's performance on cumulative learning outcomes; pre-APPE and APPE knowledge, skills, and attitudes; entrustable professional activities; team- and practice-readiness; and to demonstrate that student pharmacists are achieving outcomes required by the ACPE.

Grading Option: Honors-Pass-Fail.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.

PHMD 298. Research Seminar . 2 Units.

Designed to engage students and expose them to seminar speakers that come to discuss research or case studies in pharmaceutical sciences and pharmacy.

Grading Option: Honors-Pass-Fail.

Repeatability: May be repeated for credit unlimited times.

Restriction: Doctor of Pharmacy students have first consideration for enrollment. Graduate students only.