

Biological Sciences I and II: The course explores the basics and molecular basis for important physiological processes supporting a healthy state. Disease states will also be examined with a slight emphasis on specific biological molecules that are specific targets of drug action. This course will augment the understanding of how drugs are rationally designed based on their interactions with specific biological molecules which affect the function of targeted metabolic pathways.

Advanced Chemistry I and II: Chemistry is the cornerstone science in pharmacy and as such we will review the basic and organic chemistry principles relevant to the understanding of drug action, drug-drug interactions, toxic metabolites, pharmacodynamics and pharmacokinetic phenomena. We will also touch on some basic principles of medicinal chemistry

Pharmaceutical Sciences I and II: This course series is designed to prepare the pharmacy student for the application of mathematical concepts required in the practice of pharmacy. Such concepts include proportions, graphing, solving equations, manipulating units, understanding the “Area under the Curve”, logarithms, exponential functions, basic statistics, and some basic refresher calculus.

Anatomy and Physiology: This course will give an overview of basic physiological concepts focusing on cellular physiology, electrophysiology and muscle function. An applicable pharmaceutical application of the physiological concepts will be applied. A majority of the course will be administered on-line via the portal as a distance education course. There will be four one hour sessions for the students in which relevant clinical cases will be used to review key concepts

Critical Thinking: This course provides students with the tools, resources and thought processes to critically and objectively read and review literature relevant to the practice of Pharmacy. In addition, students will be introduced to medical terminology which will aid in the comprehension of lecture material as well as medical and pharmacy-specific literature

Pharmacy Practice: This course will present topics of utility in understanding the nature of the pharmacy profession. Several highly successful professional pharmacists, and one MD, will present topics that have characterized a subset of their distinctive contributions to the field of pharmacy and will present the student with an example of the kind of activities that, in some cases affect all pharmacists (“Empathy & Patient Care”), yet in some cases represent one of the unique and powerful career choices that exist in this profession (“The Role of the Pharmacist in Oncology Treatment”).

Pharmacology: Core Pharmacology is an introductory series of lectures designed to orient pharmacy students to the effects of drugs on humans in both normal and pathologic states. The first portion of the course deals with general principles in pharmacology, including drug absorption, distribution, elimination, and pharmacodynamics. Pharmacotherapeutics are included throughout to complement subsequent presentations. The second portion of the course focuses on drugs of the autonomic nervous system, central nervous system, chemotherapeutic agents for infections and cancer, and various other pharmaceutical agents for specific therapeutic

applications. Concepts and principles, which are important for the rational evaluation and utilization of drugs, are introduced for application in future clinical scenarios.