PRECLINICAL SCIENCES (PCS)

PCS 80111  HUMAN ANATOMY  8 Credit Hours
The macroscopic anatomy of the upper limb, thorax, abdomen, head
and neck, pelvis and perineum of the human body is described, utilizing
audiovisual teaching aids and full cadaver dissection. The course is
taught using a regional approach, with emphasis on structural and
functional relationships. The laboratory instruction includes cadaver
dissection supplemented with anatomical projections, as well as cross-
sectional anatomy and computerized educational material.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Combined Lecture and Lab
Contact Hours: 4 lecture, 4 lab
Grade Mode: Standard Letter

PCS 80112  CELL AND TISSUE  5 Credit Hours
Histology is the study of the microscopic organization of the human
body. Reciprocal relationships between normal structural features and
their functions are emphasized. Macromolecules, organelles, cells,
fundamental body tissues and organs are compared and contrasted.
Light microscopic preparations are examined in laboratories, which are
closely correlated with lecture topics.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Laboratory, Lecture
Contact Hours: 3 lecture, 1 lab, 1 other
Grade Mode: Standard Letter

PCS 80113  STAYING ALIVE  5 Credit Hours
The study of the physical and chemical properties of the major
constituents of cells and body fluids. This includes structures, functions
and biochemical mechanisms involved in the biosynthesis, utilization
and degradation of amino acids, carbohydrates, lipids, proteins and
nucleic acids. Also included are enzyme kinetics, bioenergetics, cellular
communication, nutrition and biochemistry of specialized tissues and
fluids.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Lecture
Contact Hours: 3 lecture, 5 lab, 1.5 other
Grade Mode: Standard Letter

PCS 80114  MEDICAL GENETICS AND EMBRYOLOGY  4 Credit Hours
This course will include the basic principles of human genetics dealing
with the genetic variations that impact medical practice. Molecular
genetics, cytogenetics, genomics, and population genetics will be
reviewed. This course will also review the major events and processes
involved in normal and abnormal embryologic development of the major
body organs and systems. This course is coordinated with Human
Anatomy and Cell and Tissue Biology.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

PCS 80124  LOWER EXTREMITY ANATOMY  8 Credit Hours
Lower extremity anatomy presents the detailed macroscopic anatomy
of the lower limb. The course is augmented with radiographs, MRI,
surface anatomy and cross sectional studies. The course includes
an introduction to basic concepts of podiatric medicine, surgery and
biomechanics. Laboratory instruction includes a detailed dissection of
the lower limb, supplemented with computerized educational materials
and study of natural bone specimens.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Laboratory, Lecture
Contact Hours: 4 lecture, 4 lab
Grade Mode: Standard Letter

PCS 80125  NEUROBIOLOGY  3 Credit Hours
Neurobiology is the study of the structure and function of the nervous
system. The course will deal with the anatomy, microscopic anatomy
and physiology of the individual neurons and systems of neurons,
which comprise the component parts of the nervous system. Topics will
include sensory, special sensory and motor systems, the cerebral cortex,
diencephalon, cerebellum, brainstem and spinal cord. Discussions will
include reference to clinical disorders related to those structures.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

PCS 80126  ORGAN SYSTEMS  8 Credit Hours
This course continues to elucidate the structural, chemical and
functional components of the body. Muscular, blood, cardiovascular,
respiratory, and renal cells, tissues, organs and their functions are studied.
Regulation of these functions, interrelationships between systems and
their effects on the organism and its homeostasis are detailed and
investigated. Light microscopic preparations are examined in laboratories
which are closely correlated with lecture topics.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Lecture
Contact Hours: 3 lecture, 1 lab, 4 other
Grade Mode: Standard Letter

PCS 80128  MEDICAL MICROBIO/IMMUNOLOGY  6 Credit Hours
This course will introduce the student to the basic concepts,
characteristics and techniques used in the study of the clinically
significant microbial groups: viruses, bacteria, fungi, and protozoa. The
structure, metabolism, genetics, control and laboratory techniques
of each microbic group will be described. The roles and outcomes of
these organisms in producing manifestations of human infection and
disease will be investigated. This course will also introduce the student
to the molecular, cellular and organismal mechanisms responsible for
the human immune response system. Laboratory will provide hands on
experience in staining, cultivation, identification, sensitivity testing, and
immunologic techniques.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Combined Lecture and Lab
Contact Hours: 5 lecture, 1 lab
Grade Mode: Standard Letter
PCS 80218  HUMAN SYSTEMS PATHOLOGY I  8 Credit Hours
The study of disease with emphasis on epidemiology, pathogenesis, natural history, morphologic appearance and relationship to clinical manifestation. Emphasis is placed on basic cellular pathologic processes (injury, inflammation and repair, neoplasia), and description of diseases organized by organ system. An introduction to the concepts of clinical decision making through the use of case studies and current clinical literature will be emphasized.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Lecture
Contact Hours: 8 lecture
Grade Mode: Standard Letter

PCS 80219  PHARMACOLOGY AND THERAPEUTICS I  4 Credit Hours
Historically, the clinician was responsible for information about the sources, physical and chemical properties, compounding and dispensing of drugs. Today the practitioner’s responsibility requires the rational clinical use of therapeutic agents for the prevention, diagnosis, and treatment of disease based on an understanding of pharmacological principles. This course is designed to prepare practitioners to prescribe for maximum benefit and to recognize the clinical ramifications of concomitant drug therapy.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

PCS 80228  HUMAN SYSTEMS PATHOLOGY II  8 Credit Hours
The study of disease with emphasis on epidemiology, pathogenesis, natural history, morphologic appearance and relationship to clinical manifestation. Emphasis is placed on basic cellular pathologic processes (injury, inflammation and repair, neoplasia), and description of diseases organized by organ system. An introduction to the concepts of clinical decision making through the use of case studies and current clinical literature will be emphasized.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Lecture
Contact Hours: 8 lecture
Grade Mode: Standard Letter

PCS 80229  PHARMACOLOGY AND THERAPEUTICS II  4 Credit Hours
Historically, the clinician was responsible for information about the sources, physical and chemical properties, compounding and dispensing of drugs. Today the practitioner’s responsibility requires the rational clinical use of therapeutic agents for the prevention, diagnosis, and treatment of disease based on an understanding of pharmacological principles. This course is designed to prepare practitioners to prescribe for maximum benefit and to recognize the clinical ramifications of concomitant drug therapy.
Prerequisite: Student must be enrolled in the Podiatric Medicine program.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter