

Course Descriptions Spring Semester-M1/PAI Year

MED:8131 Clinical and Professional Skills

Clinical and Professional Skills (CAPS) II will reinforce and advance the knowledge, skills and attitudes introduced in CAPS I. Communication skills and clinical reasoning will continue to develop in small groups and in sessions with simulated patients. Issues surrounding medical ethics will be addressed and the student will have the opportunity to develop a patient care plan with an interprofessional team.

MED:8132 Medicine and Society II

This second of the three Medicine and society courses continues to explore the relationships between medicine and society and focuses on public health and epidemiology. Students will explore adverse circumstances that are threats to health and methods of health promotion and disease prevention, which are shaped by societal values and views. A range of issues will be explored to include political topics, views and issues from a local and global perspective. Throughout the semester, students will utilize resources (online and community) available to health providers and patients. The purpose is to examine the dilemmas with which physicians are confronted from the humanities and identify potential solutions, while remaining mindful of the basic science curriculum.

MED:8133 Mechanisms of Health and Disease II

MOHD II examines content related to immunology, microbiology, neuroscience, histology, physiology, and pharmacology—content that has historically been siloed in individual courses—and synthesizes this content into an integrated whole. The course focuses on the mechanisms of normal biology underlying immunology and inflammation, musculoskeletal and integumentary function, and neuropsychiatry as follows:

- **Immunology/Inflammation** is the story of how the body differentiates self from non---self and how it maintains homeostasis in the face of non---self. Included are the role of the microbiome in which self and non---self-live symbiotically and influence immune maturation as well as the disordered recognition of self. Disruptions within this mechanism are the basis for infectious diseases as well as a number of autoimmune disorders.
- **Locomotion/Integument** is the story of the erect body and its coordinated movement. Included are the integument and its roles in

demarcating self from the external environment, thermostasis and immunology. Disorders of this mechanism result in impaired mobility and protection from the external environment.

- **Neuropsychiatry** is the story of the complex neural networks that enable rapid reception and transmission of sensory information; its interpretation, processing and integration; and equally rapid transduction into an appropriate response. Included are the higher functions central to what it means to be human (cognition, memory, emotion) and problems encountered in living. At the cellular level this mechanism includes ion channels, neural and neuromuscular junctions, and neurotransmitters. At the anatomical level this includes the structural components underlying major systems and pathways, as discussed in lecture and surveyed in laboratory sessions.

MED:8134 Mechanisms of Health and Disease III

Mechanisms of Health and Disease III is a 10-week course that is presented in the spring term of the first year of the medical curriculum. MOHD III will place emphasis on abnormal development and disease of mechanisms introduced in MOHD I.

Through large group sessions, small group Case Analysis and Lab CAPS(interactive virtual patient modules), students will explore:

- male and female reproductive physiology and the complications that can arise during pregnancy
- mechanisms underlying neoplastic transformation and subsequent metastasis
- mechanism(s) underlying common pathologic disease states that affect the major organ systems of the body; and current strategies, including surgery, radiation therapy and drugs, used in the treatment of these specific benign and malignant disease states.
- Major classes of drugs, as well as their specific mechanism(s) of action and potential side effects, will also be emphasized.