MEDICINE—CONJOINT (MDCJ)

Courses

MDCJ 508. Cell Structure and Function. 8.5 Units.
A fully integrated, comprehensive course that develops knowledge and skills relating normal microscopic and submicroscopic anatomy to cellular biology, cellular physiology, and immunology. General pathology, the common thread for the course, familiarizes students with morphologic and functional changes affecting cells exposed to a variety of normal and, to a lesser extent, abnormal environments.

MDCJ 509. Introduction to Medical Practice Management. 4 Units.
A comprehensive introductory course in management of a medical practice, with focus on eight major areas of responsibility (domains) within medical practice management: business operations, financial management, human resources management, information management, organizational governance, patient care systems, quality management, and risk management. Facilitates students’ understanding of these eight essential domains, contributing to their ability to manage a more effective and efficient medical practice while providing high-quality patient care with better health outcomes.

MDCJ 510. Capstone Project. 3 Units.
Surveys literature focusing on a clinical problem addressed in the basic science courses of the first-year medical curriculum. Culminates with a term paper on the researched topic.

MDCJ 519. Foundations of Clinical Medicine. 17 Units.
An integrative course consisting of interactive, patient-centered contextual learning; along with an organ system-based curriculum throughout the first year of medical school—emphasizing development of communication and physical examination skills, professionalism, mind-body interaction, pain management, end-of-life care, child and elder abuse, domestic violence, and sexuality. Introduces human development across the life cycle.

MDCJ 520. Basis of Medical Genetics. 2 Units.
Supports the organ system curriculum in the first year. Lays the basic foundations in genetics and molecular biology, including mechanisms for genetic information and its flow in eukaryotic cells. Introduces students to the causes of genetic disorders and familial disease—including inherited congenital disorders, as well as the genetic components of common disorders. Prepares students to transition to sophomore-year clinical applications and clinical case presentations. Includes didactic sessions, interactive class case presentations with real patients, and team-based learning sessions.

MDCJ 521. Applications of Clinical Genetics. 2 Units.
Supports the organ system curriculum in the second year. Expands on the basic foundations laid in the first year as knowledge is applied to real cases and disease processes that correlate with the second-year curriculum. Includes interactive learning sessions designed to provide a genetic/molecular basis for understanding human diseases. Team-based learning in small groups, self-directed learning, and reading; as well as participation in the highlighted patient cases designed to provide students not only with the practical knowledge needed for future clinical practice, but also with the tools for lifelong learning.

MDCJ 527. Cell Structure and Function. 8.5 Units.
Supports the organ system curriculum in the first year. Describes basic and organ system histology—including a foundation in immunology—and applies this material to general pathology. Develops skills in the use of the microscope and in diagnostic problem solving. Uses lectures, microscope laboratories, small-group activities, online quizzes, and interactive clicker sessions to teach histology with cell biology, immunology, and general pathology; and to apply this information to clinical problem solving and microscope skills.

MDCJ 528. Evidence-Based Medicine and Information Sciences. 3.5 Units.
Supports the organ system curriculum in the first year. Provides early learners with the medical knowledge, skills, values, and attitudes necessary to begin the process of becoming self-directed, lifelong learners in the medical professions. Combines interactive, large-group didactic sessions with small-group, problem-based learning sessions focusing on the care of patients. Promotes acquisition of the five fundamental skills of evidence-based medicine (EBM): (a) how to ask clinically relevant questions; (b) how to acquire answers to questions commonly asked by physicians; (c) how to critically appraise the medical literature; (d) how to apply results of the medical literature to patients; and (e) how to self-assess progress in the acquisition of the foregoing skills.

MDCJ 530. Pathophysiology and Applied Physical Diagnosis. 11 Units.
Supports the organ system curriculum in the second year. Uses mechanisms of disease to bridge the basic science and clinical curriculum by requiring students to think critically while applying basic science knowledge to solve clinical problems. Introduces students to the pathophysiologic principles underlying mechanisms of disease; and emphasizes the application of pathophysiologic principles to a variety of new situations that require problem solving and synthesis in a clinical context—a process accomplished through formal didactic sessions, as well as case-based, simulation, real patient, and self-directed learning activities designed to integrate basic science knowledge into the clinical encounter and promote the development of clinical skills and professionalism.

MDCJ 538. Medical Neuroscience. 3.5 Units.
Provides a broad-based foundation in neuroscience upon which students can build throughout the remainder of their medical training and professional career. Supports the organ system curriculum in the freshman year. Teaches the basic normal neuroanatomy and neuropathology of the human central and peripheral nervous system. Uses the neurologic examination to illustrate how the central and peripheral nervous systems can be evaluated. Students learn how to accurately localize lesions of the central and peripheral nervous systems, as well as the technologies that can diagnose neurologic condition—including brain magnetic resonance imaging (MRI), computerized tomography (CT), electromyography (EMG), electroencephalogram (EEG), and lumbar puncture. Incorporates formal lectures, brain dissection laboratories, small-group case studies, and online learning activities.
MDCJ 539. Diseases of Neuroscience. 4 Units.
Supports the organ system curriculum in the second year. Builds on the first-year neuroscience course to transform the basic building blocks of neuroanatomy and neurophysiology into tools that apply to “real” patients with neurologic disease. Students systematically apply the integration of neuroanatomy, neurophysiology, and the neurologic examination to patients with neurologic disease in the following broad categories: muscle disease and myopathy; neuromuscular junction disorders; peripheral neuropathy, electromyography (EMG), and nerve conduction studies (NCS); brachial plexopathy and radiculopathy; spinal cord disorders, including motor neuron disease; multiple sclerosis and demyelinating diseases; brain stem syndromes; cerebrovascular disease; movement disorders; dementia; headache; central nervous system trauma; tumors of the central nervous system (CNS); epilepsy and electroencephalography (EEG); coma and encephalopathy; neurology and neuropathology of medical disease; CNS infections; and sleep disorders. Utilizes formal lectures, audience response interactive learning, small-group case studies, interactive lecture reinforcement, team-based learning, and online learning activities. Integrates clinical neurology, neuropathology, and neuropharmacology throughout.

MDCJ 560. Basis of Medical Genetics. 2 Units.
Supports the organ system curriculum in the first year of medical education. Lays the basic foundations in genetics and molecular biology, including mechanisms for genetic information and its flow in eukaryotic cells. Introduces students to the causes of genetic disorders and familial disease, including inherited congenital disorders; as well as the genetic components of common disorders. Combines teaching and learning methodologies—including, didactic sessions, interactive class case presentations with real patients, and team-based learning sessions.

MDCJ 599. Medicine Conjoint Directed Study. 1-18 Units.
Individual arrangements for students to study under the guidance of a program faculty member. May include reading, literature review, lectures or other special projects. Minimum of thirty hours required for each unit of credit. Does not fulfill requirements towards the M.D. degree.

MDCJ 821. Preventive Medicine and Population Health. 1.5-6 Units.
Introduces clinical preventive medicine, quality improvement and patient safety, and care of the underserved in clinic and public health settings. Introduces students to various allied health professions and complementary and alternative medicine. Utilizes clinical teaching, online/independent learning, lectures, and other group-learning experiences—including simulation—to enhance the knowledge and attitudes important to public health and preventive medicine; as well as to core skills, including utilizing motivational interviewing to foster behavioral change. Teaches important quality improvement knowledge and attitudes. Requires students to work with fellow students and clinical leaders to conduct and report on a quality improvement project.

MDCJ 891. Whole Person Care. 1.5-30 Units.
Offers fourth-year medical students the opportunity to explore various aspects of whole person care, film and medicine, law and medicine, tropical medicine, and patient safety.