MEDICINE SYSTEMS (MEDS)

MEDS 7318. Clinical Clerkship Preparation. 3 Hours.
This course provides the student with the opportunity to review salient principles and procedures essential for the success at the start of clinical rotations. The course reviews the interpretation of electrocardiograms, imaging studies, and laboratory data, as well as OSCE's, procedures in the simulation lab and osteopathic principles. Students are expected to be able to participate in the diagnosis and treatment of patients upon their arrival on a clinical service in their clerkships, and this course serves to ground them in basic medical knowledge and processes. Credits: 3
Prerequisite: Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Level 1.

MEDS 7320. Systems Integration. 3 Hours.
Students integrate and apply biomedical and clinical concepts previously presented throughout the first two years of the undergraduate osteopathic medical curriculum. Mastery of foundational biomedical and clinical concepts will be assessed. Based upon personal strengths and opportunities, students develop a personalized study plan in preparation for successful completion of the COMLEX-USA Level 1 examination which is required for continuation in the curriculum.

MEDS 7404. Renal & Genitourinary. 4 Hours.
Students integrate the functional anatomy and physiology of the renal and hematopoietic systems. Students assess and interpret biochemical markers, signs, and symptoms of renal and hematopoietic pathologies. Students design comprehensive pharmacologic and non-pharmacologic treatment plans and develop an understanding of the ethical, legal, and social aspects related to disease treatment, including dialysis and transplant. Course Equivalents: MEDS 7605 .

MEDS 7405. Hematopoietic System. 4 Hours.
Students analyze the physiology, embryogenesis, and diseases of the blood. Specific emphasis is on disease states and how these reveal basic system characteristics useful in diagnosis and treatment.

MEDS 7504. Skin & Skeletal Muscle. 5 Hours.
Students investigate normal and abnormal structure and function of the integumentary, musculoskeletal, and motor systems. These systems are studied at the cellular, tissue, and organ system levels, including normal structure and function as well as states of disease and dysfunction. Course Equivalents: MEDS 7501, MEDS 7604 .

MEDS 7508. Endocrine & Reproductive. 5 Hours.
Students integrate the core biomedical sciences in the identification, differentiation, diagnosis, and management of the normal and abnormal states of the endocrine, reproductive, and genitourinary systems. Students explore the role of hormones and their impact during pregnancy, organ development, organ function, and on metabolism, including discussions relevant to historical and current medical and surgical interventions for localized and systemic diseases for these systems. Course Equivalents: MEDS 7608 .

MEDS 7607. GI System & Nutrition. 6 Hours.
Students examine the structure and function of the gastrointestinal (GI) and hepatobiliary systems in both health and disease. Basic tenets of nutrition and the impact of GI dysfunction on nutritional status are discussed. Students evaluate the impact of food and diet, including micro and macronutrients, on health and disease prevention. Topics may include therapeutic diets and nutrition for specific disorders as well as tube feeding, IV alimentation, medical and surgical interventions.

MEDS 7609. Lifecycle. 6 Hours.
Students explore topics throughout the lifespan from pediatrics to geriatrics. Discussion includes normal growth and development as well as illness and disease. Basic science underpinnings are applied to divergent clinical manifestations and care at various stages of the lifecycle.

MEDS 7802. Neurologic & Behavior. 8 Hours.
Students explore functional anatomy and physiology of the nervous system in both health and disease, learning to use the neurologic examination, imaging techniques, and biochemical markers, to objectively assess the nervous system. Students learn the signs, symptoms, and consequences of nervous system pathologies resulting from trauma, ischemia, stroke, infection, toxins, autoimmune, and genetic conditions. Students are introduced to an overview of mental health issues, including developmental disorders, adaptive and maladaptive behaviors, mood disorders, stress-induced behavior, fear and anxiety disorders, substance abuse, somatoform disorders, and psychoses. Students also examine ethical, legal, and social aspects related to neuroscience and behavioral pathologies. In order to facilitate cognitive integration of basic and clinical sciences, this course is team-taught by clinicians and basic scientists. Course Equivalents: MEDS 7602 .

MEDS 7803. Medical Microbiology and Immune System. 8 Hours.
Students apply the foundations of medical microbiology and immunology to the physical presentation, diagnosis, and treatment of infectious and immune-mediate diseases. There will be an emphasis on virulence factors and pathogenesis of medically important microorganisms, as well as the innate and adaptive host immune responses to infections and tumors, vaccination, immune deficiency diseases, hypersensitivity reactions, and immune mechanisms of transplantation rejection.

MEDS 7806. Cardiovascular & Respiratory. 8 Hours.
Students integrate concepts related to the cardiovascular and respiratory systems in health and disease. Students analyze environmental and socio-cultural aspects of the region influencing the normal function of the systems. Topics may include morphological sciences (anatomy, histology, and embryology), physiology, pathology, and contemporary therapeutic approaches. Students integrate basic and clinical sciences in the context of commonly presented clinical scenarios. Course Equivalents: MEDS 7606 .