MD2 - Medical School: Year 2

MD2 0910 Year 2 First Patient Capstone Course Cr. 0
Students build upon the Year 1 Capstone course and continue to research the pathological finding associated with their first patient as they complete their basic science courses (abnormal systems) during their second year of medical school. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6510 Clinical Medicine II: Physical Diagnosis Cr. 0
Advanced physician-patient communication skills; additional competencies in physical examination and diagnosis. Offered Yearly.
Restriction(s): Enrollment is limited to Medical level students; enrollment limited to students with a class of Med Second Year; enrollment limited to students in the School of Medicine; enrollment is limited to students with a major in Medicine; enrollment limited to students in a Doctor of Medicine degree; enrollment limited to students in the Medical Doctor program.

MD2 6600 Directed Study Cr. 1-12
Students participate in an individualized curriculum designed to enhance their knowledge and skills in preparation for the next phase of medical school. Offered Yearly.
Restriction(s): Enrollment is limited to Medical level students; enrollment limited to students with a class of Med First Year or Med Second Year; enrollment limited to students in the School of Medicine; enrollment is limited to students with a major in Medicine.
Repeatable for 12 Credits

MD2 6610 Step 1 Preparation Course Cr. 1
As the first of what will be a lifetime of licensure exams, preparing for the USMLE Step 1 exam often creates a great deal of stress for students. While some amount of stress is a natural part of the test prep process, it does not have to be debilitating. The Wayne State School of Medicine serves to mitigate some of this stress by providing students with multiple resources to help them optimize their performance on Step 1. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6650 Step 1 Summer Preparation Cr. 2-8
Students will be provided the opportunity to enhance their Step 1 examination readiness through formal classroom and independent learning. Offered Yearly.
Restriction(s): Enrollment is limited to Medical level students; enrollment limited to students with a class of Med Second Year; enrollment is limited to students with a major in Medicine.
Repeatable for 8 Credits

MD2 6700 Foundations Course: Fundamentals of Human Disease Cr. 7
Engages the second year medical students in learning the key concepts related to the mechanisms and consequences of human disease. Using examples from multiple body sites, this course will provide an in-depth study of basic pathologic processes. The major categories of disease to be covered will include: cellular adaptation and injury; inflammation and repair; circulatory disturbances; atherosclerosis; forensic pathology; immunopathology; neoplasia; genetic and pediatric diseases; environmental and nutritional disorders; infectious disease; and therapeutics. Within each of these categories, two concepts will be particularly emphasized: pathogenesis and altered morphology. Pathogenesis (mechanism of disease development) is reviewed primarily at the molecular and cellular level. It is at this step that the course will interface with biochemistry, pharmacology, cell biology, genetics, immunology, microbiology, and physiology. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6701 Population, Patient, Physician and Professionalism (P4) Part II Cr. 5
Builds on concepts learned in the first course with additional emphasis on equipping trainees to provide patient-centered and culturally responsive care to distinct patient populations living in Detroit. Topics of discussion include nutrition-related chronic disease, veteran health, sexual health, homeless health, school-based health and healthcare provided to those with disabilities. Through large group sessions, small group sessions, online modules, and service-learning activities, trainees will become effective inter-professional team members, learn how to reduce health care disparities, improve professional development and foster self-directed learning skills. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6702 Musculoskeletal, Skin and Peripheral Nervous Systems: Fundamentals of Human Disease Cr. 3
Engages medical students in learning the key concepts related to the pathogenesis, pathology, pathophysiology, basic principles of diagnosis, and treatment of disease processes effecting the musculoskeletal organ system, skin, and peripheral nervous system. Content includes: review of the anatomy of the extremities/spine; upper/lower extremity fractures/injuries; development, normal structure/function, and aging of bones and joints; metabolic and non-metabolic bone disease; scoliosis; disorders of the extracellular matrix and soft tissue; synovial fluid analysis; osteoarthritis; rheumatoid arthritis; septic arthritis; gout; CPPD deposition disease and pseudogout; ankylosing spondylitis; reactive arthritis; psoriatic arthritis; systemic lupus erythematosus; systemic sclerosis; skin tumors and rashes; skin and soft tissue infections; manifestations of neuromuscular diseases; and pharmacologic interventions for the treatment of MSK, PNS, and skin disorders. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.
MD2 6703 Cardiopulmonary Systems: Fundamentals of Human Disease Cr. 5
Covers the key concepts related to the pathology, pathophysiology, diagnosis and treatment of cardiovascular and pulmonary disease. The cardiovascular component includes: normal anatomy, embryology, and physiology; systemic hypertension; atherosclerosis and ischemic heart disease; basic electrophysiological principles; ECG interpretation; valvular heart disease; diseases of the pericardium; tumors; non-atherosclerotic vascular disease; primary myocardial disease; cardiovascular disease in the elderly; congenital heart disease; and congestive heart failure. The pulmonary component includes: normal anatomy, histology, and physiology; arterial blood gases; various diseases affecting the pulmonary system; lung cancer and smoking cessation; aging and the respiratory system; respiratory failure; and introduction to sleep and sleep medicine. Relevant pharmacologic management of cardiovascular and pulmonary diseases will also be discussed. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6704 Gastrointestinal Systems: Fundamentals of Human Disease Cr. 3
Engages medical students in learning the key concepts related to the etiology, pathogenesis, pathology, and pathophysiology of non-infectious and infectious disease processes affecting the gastrointestinal organs, as well as basic principles of their diagnosis and treatment. The following content areas will be covered: liver disorders; diseases affecting the gallbladder, extrahepatic biliary tract and pancreas; diseases of the salivary glands, esophagus, stomach, small intestine, and colon; genetic predisposition to cancers of the gastrointestinal tract; and the effects of various systemic disorders on the GI tract. Nutritional and pharmacologic management of gastrointestinal diseases will also be included. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6705 Renal and Urinary Systems: Fundamentals of Human Disease Cr. 2
Provides medical students with an understanding of the pathogenesis, pathology and pathophysiology of disease processes affecting the kidney and urinary tract. Students will develop the skills of diagnosis and learn treatment options. The following content areas are covered: normal renal physiology; various disorders of body fluid, electrolyte and acid-based regulation; the principles underlying appropriate therapeutic strategies; acute and chronic renal failure; uremia; end stage renal disease; major glomerular, tubulointerstitial and systemic diseases with renal involvement; major benign and malignant tumors of the kidney and bladder; infections of the urinary tract; the principles for appropriate supportive and therapeutic measures including nutritional management of patients with renal disease; and an understanding of the physiologic basis for the pharmacologic actions of drugs on the kidney. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6706 Endocrine and Reproductive Systems: Fundamentals of Human Disease Cr. 3
Engages medical students in learning the key concepts related to the pathogenesis, pathology, and pathophysiology of the more common disease processes affecting the endocrine and reproductive organ systems, as well as basic principles of their diagnosis and treatment. The following content areas will be covered: fundamental concepts regarding endocrine hormones; the hypothalamic/pituitary axis and related disorders; reproductive endocrinology and corresponding abnormalities; disorders of the male and female genital tracts; abnormalities of the placenta and selected complications of pregnancy; breast disease; diabetes mellitus; lipid disorders; diseases of the thyroid, parathyroid, and adrenal glands; calcium homeostasis and disorders of calcium; endocrine hypertension; obesity; and genetic factors that play a role in endocrine disorders. Nutritional management of diabetic and obese patients will be covered. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6707 Hematopoietic and Lymphoid Systems: Fundamentals of Human Disease Cr. 2
The overall goal will be to provide the foundations, background facts and expected competencies, to foster understanding common benign and malignant hematological disorders. At the end of this course, students should have the skills and the ability to integrate the acquired knowledge into clinical settings. The following content areas will be covered: a review of normal blood coagulation, hemostasis and platelet function; hemolytic anemia including diagnostic tests; hemoglobinopathies including how hemoglobin alterations produce disease, diagnosis and management; platelet disorders including the symptoms associated with inherited and acquired coagulation and vascular disorders; an introduction to stem cell transplantation; transfusion medicine; diagnostic criteria, pathophysiology, and therapeutic options for the treatment of anemia, myelodysplastic syndromes, acute leukemias, myeloproliferative disorders, and lymphomas, among other topics. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6708 Central Nervous System: Fundamentals of Human Disease Cr. 3
Covers key concepts related to disease processes affecting the central nervous system, and provides the basis for understanding the unique features that disease processes in the brain. Enables students to integrate neuroanatomy, neuropathology, and introductory clinical neurology in preparation for the clinical rotation in neurology. The following content areas will be covered: basic neuropathology and mass lesions; brain tumors and infectious processes; neurodegenerative diseases; cognitive dysfunction and dementia; the application of neuroradiology to diagnosis; pathology of cerebrovascular disorders and stroke; nervous system trauma; autoimmune and demyelinating diseases; epilepsy; and the pharmacotherapy of headache. Normal development and the recognition and treatment of psychiatric disorders seen in adults and children will also be covered. This portion will prepare students for their clinical rotation in psychiatry and provide a background in psychiatry. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6709 Clinical Skills Course III Cr. 3
A self-directed, competency-based course designed to develop and demonstrate knowledge and skills in history-taking, patient examination, oral case presentation, clinical reasoning and procedural skills. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.
MD2 6710 Clinical Experiential Clerkship Cr. 4
The course is focused on ambulatory clinical immersion with the overall objective of developing students as medical professionals, patient advocates, and skilled clinicians. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6711 Medical Political Action and Public Health Leadership (MPAC) Part II Cr. 5
Provides students with an opportunity to learn, practice and apply knowledge and skills as physician healthcare leaders and advocates. Students will engage in healthcare advocacy to improve healthcare for patients and communities and to improve the health systems that deliver care. Working with organized medicine, students will author resolutions and meet with governmental leaders to present and advocate for reforms to decrease health disparities. Students will learn about use of media as a tool for advocacy and learn about philanthropy as it relates to healthcare. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6712 Community Engagement Part II Cr. 5
Provides students with an opportunity to explore and understand the experience of under-served patients as they navigate community health services in Southeast Michigan. Medical students interact with patients or participants and staff to learn the circumstances and challenges faced with limited resources, to foster empathy, compassion, respect and humanistic care. Meeting with agency leaders and staff students learn about program design, administration and operation through outreach and mentoring volunteering. Offered Yearly.
Prerequisite: MD1 5151
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6713 Medical Research Elective Part II Cr. 5
This research program is designed to “prepare physicians who are committed to excellence by cultivating habits of research and inquiry.” By participating in an investigative experience, it will also significantly impact and sharpen critical reasoning skills. Students who are educated in a research environment are stimulated to seek a deeper understanding of health and disease and develop their ability to analyze scientific literature, making them valued members of any medical field, whether it be academic medicine, community-based practice, health care policy, or emerging technologies. Offered Yearly.
Prerequisite: MD2 6711
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6714 Medical Political Action & Public Health Leadership (MPAC) Part III Cr. 1
The MPAC program elective provides students with an opportunity to learn, practice and apply knowledge and skills as physician healthcare leaders and advocates. Students will engage in healthcare advocacy to improve healthcare for patients and communities and to improve the health systems that deliver care. Working with organized medicine, students will author resolutions and meet with governmental leaders to present and advocate for reforms to decrease health disparities. Students will learn about use of media as a tool for advocacy and learn about philanthropy as it relates to healthcare. Offered Yearly.
Prerequisite: MD2 6711
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6715 Community Engagement Part III Cr. 1
The Community Engagement elective provides students with an opportunity to explore and understand the experience of underserved patients as they navigate community health services in Southeast Michigan. Medical students interact with patients or participants and staff to learn the circumstances and challenges faced with limited resources, to foster empathy, compassion, respect and humanistic care. Meeting with agency leaders and staff students learn about program design, administration and operation through outreach and mentoring volunteering. Offered Yearly.
Restriction(s): Enrollment limited to students with a class of Med Second Year.

MD2 6716 Medical Research Elective Part III Cr. 1
This research program is designed to “prepare physicians who are committed to excellence by cultivating habits of research and inquiry.” By participating in an investigative experience, it will also significantly impact and sharpen critical reasoning skills. Students who are educated in a research environment are stimulated to seek a deeper understanding of health and disease and develop their ability to analyze scientific literature, making them valued members of any medical field, whether it be academic medicine, community-based practice, health care policy, or emerging technologies. Offered Yearly.
Prerequisite: MD2 6713
Restriction(s): Enrollment limited to students with a class of Med Second Year.