

MD Medicine (M.D. Program)

***MD 800 ELECTIVE: SPECIAL TOPICS. (0-4)**

This special topics course is for topics not covered elsewhere in the curriculum. It may count toward one elective requirement for graduation. Prereq: Students must be in good academic standing. Approval is at the discretion of Curriculum Committee.

MD 810 FOUNDATIONS OF INFECTION, DISEASE AND THERAPEUTICS. (10)

This course covers basic mechanisms that underlie many of the organ specific diseases, with a focus on biochemistry, genetics, infections, immune mechanisms of disease, inflammation and neoplasia. It will also discuss treatment of these entities and provide basic information on pharmacokinetics and pharmacodynamics. Prereq: Admission to Medical School (first year).

MD 811 INTRODUCTION TO CLINICAL MEDICINE. (8)

The goal of the Introduction to Clinical Medicine (ICM) course is to provide students with opportunities to develop knowledge, skills, and attitudes about the doctor/patient relationship that are necessary to practice patient-centered and evidenced-based care. Prereq: Admission to the College of Medicine.

MD 813 BEHAVIORAL BASIS OF MEDICINE. (3)

The Behavioral Basis of Medicine delivers key concepts from Psychiatry, Pharmacology and Behavioral Science in a mostly lecture-based format. Students are introduced to psychiatric conditions, to the observations that lead to a psychiatric diagnosis, and to some of the pharmacologic, psychotherapeutic and psychosocial modes of treatment. Prereq: Admission to Medical School (first year).

***MD 814 CLINICAL ANATOMY AND RADIOLOGY. (9)**

This course presents an integrated approach to the core gross and microscopic anatomy within the clinical context. Students will correlate basic anatomy into the interpretation of both radiologic images and physical examination findings. This course builds a foundation for the understanding of human anatomy essential to the remainder of the medical curriculum. Prereq: Admission to Medical School (first year).

MD 816 HEMATOLOGIC AND LYMPHATIC SYSTEMS. (4)

As part of the first-year organ system-based curriculum, this course covers the normal structure, development and function of the components of the hematopoietic and lymphoreticular systems; the pathophysiology of hematologic and lymphatic diseases and disorders; and the medical and pharmacological approaches to diagnosis and treatment. Prereq: Admission to medical school (first year).

***MD 817 NEUROSCIENCES. (8)**

This course is an integrated presentation of relevant topics in human neuroanatomy, neurophysiology, neuropathology, neuropharmacology, and some microbiology as well as introductory correlations with neurology. Teaching methodology includes lecture, small group discussion, laboratory and self-study units. Prereq: Admission to Medical School (first year).

MD 818 MUSCULOSKELETAL AND INTEGUMENTARY SYSTEMS. (5)

As part of the first-year organ system-based curriculum, this course covers the normal physiology and histology of the musculoskeletal/integumentary systems, the pathophysiology of diseases and disorders of these systems, and the medical and pharmacologic approaches to diagnosis and treatment. Prereq: Admission to Medical School (first year).

MD 820 CONTEMPORARY PRACTICE OF MEDICINE. (2)

The overall goal of the course is for students to develop a deeper understanding of the interconnected issues that influence the health of populations and how to analyze approaches to improve health. This course uses current public health issues to understand evidence-based medicine and public health interventions. Prereq: Promotion to the second year of the M.D. program.

MD 821 ADVANCED CLINICAL MEDICINE. (4)

This course serves as a bridge between the basic and clinical sciences by teaching students the knowledge and skills necessary to develop into excellent diagnosticians. The course focuses on the following skills: the ability to interpret history and physical examination findings, integrate basic laboratory and radiographic data, and formulate a differential diagnosis. Learning activities include: formal lectures, textbook readings, small group tutorials, preceptorships, workshops, online modules, and written and practical testing. Prereq: Promotion to second year of M.D. program.

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MD 822 MUSCULOSKELETAL AND INTEGUMENTARY SYSTEMS. (6)

As part of the second-year organ system-based curriculum, this course covers the normal physiology and histology of the musculoskeletal/integumentary systems, the pathophysiology of diseases and disorders of these systems, and the medical and pharmacologic approaches to diagnosis and treatment. Learning activities include lecture, dissection laboratory, panel discussion, small groups/team based learning, and clinical correlations. Prereq: Promotion to the second year of the M.D. program.

MD 823 HEMATOLOGIC AND LYMPHATIC SYSTEMS. (3)

As part of the second-year organ system-based curriculum, this course covers the normal structure, development, and function of the components of the hematopoietic and lymphoreticular systems; the pathophysiology of hematologic and lymphatic diseases and disorders; and the medical and pharmacological approaches to diagnosis and treatment. Learning activities include lectures, labs, self-directed study, workshops and small groups. Prereq: Promotion to the second year of the M.D. program.

MD 824 ENDOCRINE AND REPRODUCTIVE SYSTEMS. (6)

As part of the second-year organ system-based curriculum, this team-taught course covers the normal physiology and histology of the endocrine and reproductive systems, the pathophysiology of diseases and disorders of these systems, and the medical and pharmacologic approaches to diagnosis and treatment. This course also covers the normal physiologic and developmental processes that accompany the transition from fetus (intrauterine) to newborn (extrauterine). Prereq: Promotion to the second year of the M.D. program.

MD 825 RENAL AND URINARY SYSTEMS. (4)

As part of the second-year organ system-based curriculum, this team-taught course covers the normal physiology and histology of the kidney and urinary system, the pathophysiology of renal and urinary diseases and disorders, and the medical and pharmacologic approaches to diagnosis and treatment. Prereq: Promotion to the second year of the M.D. program.

MD 826 CARDIOVASCULAR SYSTEM. (5)

As part of the second-year organ system-based curriculum, this course will cover the normal structure and physiologic function of the cardiovascular system, the pathophysiology of common disorders and diseases of the heart and vascular system, and the medical and pharmacologic approaches to diagnosis and treatment. Prereq: Promotion to the second year of the M.D. program.

MD 827 RESPIRATORY SYSTEM. (5)

As part of the second-year organ system-based curriculum, this course covers the normal structure and function of the respiratory system, the immunology and pathophysiology of respiratory diseases and disorders, and the medical and pharmacologic approaches to diagnosis and treatment. Prereq: Promotion to the second year of the M.D. program.

MD 828 GASTROINTESTINAL SYSTEM AND NUTRITION. (5)

As part of the second-year organ system-based curriculum, this course covers the normal histology, anatomy and physiology of the gastrointestinal system, the pathophysiology of gastrointestinal diseases and disorders, and the medical and pharmacologic approaches to diagnosis and treatment. The course also includes instruction on the principles of nutrition. Prereq: Promotion to the second year of the M.D. program.

MD 829 MULTISYSTEM AND INTEGRATIVE CONCEPTS. (3)

This course serves as the capstone course for the first- and second-year organ system-based curriculum. Students synthesize and apply the knowledge and concepts learned on an organ-based level to the multisystems level. Prereq: Promotion to the second year of the M.D. program.

MD 830 PEDIATRICS. (8)

This clinical course would provide an opportunity for students to care for the pediatric patient in multiple settings, including inpatient wards, newborn nursery and in the primary care setting. Students participate in patient-centered teaching. Students interview, examine, and formulate treatment plans for patient problems under the direct supervision of their residents and faculty preceptors. Laboratory, 40 hours per week. Prereq: Admission to third year of medical curriculum.

MD 831 INTERNAL MED/EM MED INTEGRATED CLERKSHIP. (4)

This course will provide students with an introduction to the field of Emergency Medicine, Emergency Medical Services (EMS), and the approach to the acutely ill or injured patient. The students will complete an ACLS class during this rotation. Clinical, 40 hours per week. Prereq: Admission to third year of medical curriculum.

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MD 832 CLINICAL NEUROSCIENCE: NEUROLOGY. (4)

The course will diagnose the common, acute, and emergency problems of disease of the central nervous system. Prereq: Completion of 2nd year of medical school.

MD 833 CLINICAL NEUROSCIENCES/PSYCHIATRY. (4)

This course provides opportunity for third year medical students to recognize, treat, and understand the etiology and pathology of common psychiatric disorders and emergencies. Laboratory, forty hours per week. Prereq: Admission to third year of medical curriculum.

MD 834 PRIMARY CARE/FAMILY AND COMMUNITY MEDICINE. (4)

This course introduces third year medical students to primary care family practice in rural and urban settings. Students participate in patient-centered teaching during which they work with primary care Family Physicians seeing ambulatory patients in their offices. Students are allowed to interview, examine, and formulate treatment plans for patient problems under the direct supervision of their faculty preceptors. Prereq: Admission to third year of medical curriculum.

MD 835 INTERNAL MEDICINE/EMERGENCY MEDICINE INTEGRATED CLERKSHIP. (12)

This course is an introduction to the concepts of internal medicine in both inpatient and outpatient settings. Students interview, examine and formulate treatment plans for patient problems under the direct supervision of faculty preceptors. The course will use didactics, computer simulated problems as well as clinical material and experiences to integrate basic sciences into the practice of medicine. Clinical, 40 hours per week. Prereq: Admission to third year of medical curriculum.

MD 837 MEDICAL SURGICAL CARE/SURGERY. (8)

This course is an introduction to the concepts in surgery. It is designed around the principles of Problem Based Learning to help students solve complex surgical problems. The course will use didactic exercises, computer simulated problems and clinical material and experiences to integrate basic sciences into the practice of medicine and surgery. Laboratory, 40 hours per week. Prereq: Admission to third year of medical curriculum.

MD 838 OBSTETRICS AND GYNECOLOGY. (4)

The clerkship will provide an opportunity for students to see the cycle of birth and neonatal care and to observe the mother/infant relationship through the outpatient clinic, labor and delivery, the newborn nursery, and the follow-up examination. Laboratory, 40 hours per week. Prereq: Admission to third year of medical curriculum.

#MD 839 ENTRUSTMENT IN CLINICAL MEDICINE. (5)

This is a longitudinal course throughout the Application Phase of medical school and is designed to provide medical students with the foundational knowledge and beginning skills in preparation for the supervised practice of medicine. The course will utilize both large and small group settings for the acquisition of knowledge related to common topics related to the contemporary practice of medicine. Simulation using both standardized patients and simulators will provide realistic clinical scenarios to practice the wide range of skills necessary for medical practitioners. Prereq: Promotion to Application Phase of M.D. curriculum.

MD 840 TRANSITION TO RESIDENCY. (4)

This course is designed to provide fourth year medical students with the foundational knowledge and skills in preparation for the supervised practice of medicine. Students will be divided into small groups dedicated to practice areas to hone the skill specific to their intended area of future practice. Within each group, students will review the foundational science and clinical applications of that knowledge. Simulation using both standardized patients and high fidelity simulators will provide realistic clinical scenarios to practice the wide range of skills necessary for medical practitioners. Prereq: Admission to fourth year of medical curriculum.

***MD 841 ELECTIVE: GERIATRICS. (4)**

This course combines several teaching techniques to provide students with basic skills necessary to care for elderly patients in a variety of clinical settings. Fourth year students participate in a four-week block rotating at locations in Lexington, with emphasis on assessment and rehabilitation. Prereq: Promotion to the Advanced Development Phase of M.D. curriculum.

MD 842 ADVANCED CLINICAL PHARMACOLOGY AND ANESTHESIOLOGY. (4)

This course uses lectures, interactive small groups, and firsthand experience to introduce anesthesiology as it relates to pharmacology and physiology. The course also teaches pharmacology and therapeutics utilizing clinical cases. Students develop their own personal formularies during the course. Laboratory, 40 hours per week. Prereq: Admission to fourth year of medical curriculum.

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MD 843 EMERGENCY MEDICINE.

(4)

This course will provide the students with an introduction to the field of Emergency Medicine, Emergency Medical Services (EMS), and the approach to the acutely ill or injured patient. The students will complete an ACLS class during this rotation. Laboratory, 40 hours per week. Prereq: Admission to fourth year of medical curriculum. (Same as ER 843.)

***MD 855 ELECTIVE: COMMUNITY ENGAGEMENT.**

(4)

Students are matched with a community partner based on experience, career goals, and agency needs. Students work with the program and the partner sites to develop a project plan that details clinical, leadership, scholarly and administrative activities, which are determined based upon learning outcome goals and agency initiatives. Primary responsibilities include clinical service with individuals, families, and groups, assessment/testing, clinical consultation, student supervision, and administrative duties. In addition, students may participate in program design and development, grant writing, training, or scholarly projects that are intended to improve services within the community agency. Prereq: Promotion to the Advanced Development Phase of M.D. curriculum.

MD 860 CLINICAL DERMATOLOGY I.

(4)

Students will spend mornings in the outpatient dermatology clinic and two afternoons per week with inpatient dermatology consultations. Each student will have the opportunity to evaluate and treat patients under the supervision of the attending physician. S/he will be able to observe and assist in minor surgical procedures. Students will attend and participate in didactic interactive sessions once or twice a week, and complete a required on-line dermatology module. Prereq: Successful completion of third year rotations.