
MD Medicine (M.D. Program)

MD 800 SPECIAL TOPICS COURSE. (0-4)

This special topics course will be used for students who must complete activities outside of the medical curriculum in order to meet graduation requirements. In particular, students who must complete prescribed remediation that does not involve repeating a formal course or who must complete licensing exams in order to graduate would use this mechanism. Additionally, this course could be used for student research activities. Prereq: Permission of the Dean of the College of Medicine.

MD 810 FOUNDATIONS OF DISEASE AND THERAPEUTICS. (9)

Through lecture, small group, and laboratory exercises, this course teaches the core principles of microbiology, immunology, pharmacology, pathology, and some physiology. It provides a framework for understanding the relationship between these disciplines and how they contribute to clinical systems. This course prepares students for the second year organ systems courses, clinical rotations and the national medical licensing exam. 20 hours per week. Prereq: Admission to Medical School (first year).

MD 811 INTRODUCTION TO CLINICAL MEDICINE I. (10)

Introduction to Clinical Medicine I is a year-long course for first-year medical students, designed to develop applied behavioral and professional skills relevant to the practice of medicine and in preparation for clinical rotations, to build a foundation of behavioral science knowledge relevant to medical practice, and to develop an awareness of professionalism and ethical issues foundational to the practice of medicine. 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 ANATOMY. (9)

The course consists of lecture, small group, laboratory, and palpation exercises that provide a basic understanding of anatomical principles, organization and development as well as the core principles of histology. Anatomical structures are introduced as a basis for future functional correlates and principles are taught via laboratory discussions, prosections, dissections, films and skeletal materials. Lecture, 20 hours per week. Prereq: Admission to Medical School (first year).

†MD 816 CELLULAR STRUCTURE AND FUNCTION/GENETICS.

MD 817 NEUROSCIENCES. (8)

The course is an integrated presentation of relevant topics in human neuroanatomy, neurophysiology, neuropathology, neuropharmacology and some microbiology, as well as introductory correlations with neurology and psychiatry. Teaching methodology includes lecture, small group discussion, laboratory and self-study units. Lecture, 20 hours per week. Prereq: Admission to Medical School (first year).

***MD 819 CELLULAR STRUCTURE AND FUNCTION: BIOCHEMISTRY AND GENETICS. (11)**

This course provides students with the knowledge and understanding of human biochemistry, molecular biology, and genetics and their relationships to human health and disease states. The course also integrates relevant aspects of biochemistry, molecular biology, and genetics with an emphasis on problem solving and clinical situations, with the goal of equipping students to be outstanding physicians. Prereq: Admission to Medical School (first year).

***MD 821 INTRODUCTION TO CLINICAL MEDICINE II. (12)**

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 perform a history and physical examination, integration of basic laboratory and radiographic data, and differential diagnosis formulation. Learning activities include: formal lectures, textbook readings, small group tutorials, preceptorships, workshops, online modules, and written and practical testing. Prereq: Promotion to the second year of the M.D. program.

***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.

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- *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. (5)**
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. 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. (4)**
As part of the second-year organ system-based curriculum, this course covers the normal histology 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.
- 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.

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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 840 INTERNSHIP 101. (1)

This course is designed to provide the student with practical knowledge of the role of the intern by review and practice in lab (COMLC) and simulation center of specific generic skills necessary for the successful navigation of the PGY1 year. Prereq: Successful completion of all M1-M4 requirements.

MD 841 GERONTOLOGY. (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. Laboratory, 40 hours per week. Prereq: Admission to fourth year of medical 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.

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 RURAL PHYSICIAN LEADERSHIP PROGRAM (RPLP) COMMUNITY ENGAGEMENT SELECTIVE. (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: 4th year medical students in the RPLP Program.

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.