

# MD1 - MEDICAL SCHOOL: YEAR 1

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## **MD1 0900 Year 1 First Patient Capstone Course Cr. 0**

Students will develop the necessary self-directed and life-long learning skills necessary for the practice of medicine through classroom learning and independent research. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

## **MD1 5050 Advanced Learning Strategies for Physicians in Training Cr. 2**

Designed to provide students with knowledge, skills, and behaviors consistent with optimizing academic performance in the medical education learning environment. These include: using evidence-based programming designed to foster clinical/critical thinking skills, developing metacognitive awareness through exposure to and practice with highly effective learning techniques required for success in medical school, and assessing and providing feedback on information age competencies. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

## **MD1 5051 Foundations of Normal Structure and Function Cr. 4**

Introduces students to the study of medicine beginning with the exploration of life at the molecular and cellular levels. The course content is delivered by faculty whose expertise encompasses the disciplines of Biochemistry, Cell Biology & Histology, Human Genetics, Pharmacology, and Physiology. Themes will include: biological membranes; protein function; fundamentals of inter- and intracellular signal transduction, cellular energetics; introduction to the biochemical and physiological effects of pharmaceutical drugs (pharmacodynamics) and to how the human body processes drugs (pharmacokinetics); the flow of genetic information at the molecular level and on the basic principles of human genetics; and advanced topics in human genetics and pharmacology, and with the examination of human fetal development from fertilization through the first eight weeks of life. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

## **MD1 5052 Normal Structure and Function: Musculoskeletal, Skin, Peripheral Nervous & Cardiopulmonary Systems Cr. 5**

The first portion of the course will cover the structure and function of the normal musculoskeletal, skin, peripheral nervous system. The second portion of the course will cover the structure and function of normal cardiopulmonary system. By the end of the course, students will be able to describe the gross anatomical structure, microanatomy, and normal development of these systems. They will also apply basic scientific principles from biochemistry, physiology, and pharmacology to describe the normal function. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

## **MD1 5053 Block 3 Lab Cr. 2**

The first portion of the course will cover the structure and function of the normal musculoskeletal, skin, peripheral nervous system. The second portion of the course will cover the structure and function of normal cardiopulmonary system. By the end of the course, students will be able to describe the gross anatomical structure, microanatomy, and normal development of these systems. They will also apply basic scientific principles from biochemistry, physiology, and pharmacology to describe the normal function. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

## **MD1 5054 Normal Structure and Function of the Gastrointestinal and Urinary Systems Cr. 3**

Students will learn the structure and function of the normal gastrointestinal and urinary systems. By the end of the course, students will be able to describe the gross anatomical structure, microanatomy, and normal development of these systems. They will also apply basic scientific principles from biochemistry, physiology, and pharmacology to describe the normal function. The first portion of the course will cover the structure and function of the normal gastrointestinal system, including the oral cavity, the pharynx and esophagus, the stomach, the intestines, the anal canal, and the liver and associated digestive organs. The second portion of the course will cover the structure and function of the urinary system, including the renal system (kidneys) and the urinary tract. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

## **MD1 5055 Block 4 Lab Cr. 1**

Students will learn the structure and function of the normal gastrointestinal and urinary systems. By the end of the course, students will be able to describe the gross anatomical structure, microanatomy, and normal development of these systems. They will also apply basic scientific principles from biochemistry, physiology, and pharmacology to describe the normal function. The first portion of the course will cover the structure and function of the normal gastrointestinal system, including the oral cavity, the pharynx and esophagus, the stomach, the intestines, the anal canal, and the liver and associated digestive organs. The second portion of the course will cover the structure and function of the urinary system, including the renal system (kidneys) and the urinary tract. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

## **MD1 5056 Normal Structure and Function of the Reproductive, Endocrine, Blood, and Lymphatic Systems Cr. 3**

Students will learn the structure and function of the normal endocrine and reproductive systems, as well as the structure and function of the components of blood and the normal lymphatic system. By the end of the course, students will be able to describe the gross anatomical structure, microanatomy, and normal development of these systems. They will also apply basic scientific principles from biochemistry, physiology, and pharmacology to describe the normal function. The first portion of the course will cover the structure and function of the normal reproductive and endocrine systems. The second portion of the course will cover the structure and function of normal blood and the lymphatic system, including an introduction to basic immunology. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

## **MD1 5057 Block 5 Lab Cr. 1**

Students will learn the structure and function of the normal endocrine and reproductive systems, as well as the structure and function of the components of blood and the normal lymphatic system. By the end of the course, students will be able to describe the gross anatomical structure, microanatomy, and normal development of these systems. They will also apply basic scientific principles from biochemistry, physiology, and pharmacology to describe the normal function. The first portion of the course will cover the structure and function of the normal reproductive and endocrine systems. The second portion of the course will cover the structure and function of normal blood and the lymphatic system, including an introduction to basic immunology. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

**MD1 5058 Normal Structure and Function of the Central Nervous System Cr. 3**

Students will learn the structure and function of the central nervous system (CNS). By the end of the course, students will be able to describe the major pathways and centers in the brain and spinal cord and their normal function including the special senses. This will include the disciplines of Gross Anatomy, Microanatomy, Biochemistry, Cell Biology, Pharmacology, Physiology, and Development (both anatomical and behavioral). Students will be able to demonstrate application of the principles of normal structure and function to a clinical scenario involving damage to the central nervous system by predicting the outcome. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

**MD1 5059 Block 6 Lab Cr. 2**

Students will learn the structure and function of the central nervous system (CNS). By the end of the course, students will be able to describe the major pathways and centers in the brain and spinal cord and their normal function including the special senses. This will include the disciplines of Gross Anatomy, Microanatomy, Biochemistry, Cell Biology, Pharmacology, Physiology, and Development (both anatomical and behavioral). Students will be able to demonstrate application of the principles of normal structure and function to a clinical scenario involving damage to the central nervous system by predicting the outcome. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

**MD1 5060 Clinical Skills Course I Cr. 5**

Designed to develop and demonstrate foundational knowledge and basic clinical skills in history-taking, patient examination, oral case presentation, clinical reasoning and performance of procedures required to participate in clinical service learning activities. Students who are competent in these foundational skills will then proceed to develop advanced skills in patient interviewing and physical examination emphasizing a patient-centered empathic and compassionate approach incorporating the patient's perspective, socioeconomic background and cultural intelligence, and protection of patient privacy required to participate in early clinical experiences. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

**MD1 5061 Clinical Skills Course II Cr. 3**

Designed to develop and demonstrate foundational knowledge and basic clinical skills in history-taking, patient examination, oral case presentation, clinical reasoning and performance of procedures required to participate in clinical service learning activities. Students who are competent in these foundational skills will then proceed to develop advanced skills in patient interviewing and physical examination emphasizing a patient-centered empathic and compassionate approach incorporating the patient's perspective, socioeconomic background and cultural intelligence, and protection of patient privacy required to participate in early clinical experiences. Offered Yearly.

**MD1 5062 Population, Patient, Physician and Professionalism (P4) Cr. 9**

Provides students the opportunity to learn, practice, and apply knowledge and skills as a physician-in-training in diverse urban clinical and community outreach settings. Through large group sessions, small group sessions, online modules, self-directed reflective assignments, and clinical and community engagement, students will actively participate in activities demonstrating the interconnectedness of the population, patient and physician. The course also emphasizes the need for students to quickly develop their professional identity as a physician-in-training by behaving professionally and demonstrating respect to their colleagues, faculty, patients and families. By engaging early with patients and potential patients, students' attitudes, as well as knowledge and skills, will be developed with a concentrated focus on understanding the patient's perspective, leading to true patient-centered care.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

**MD1 5150 Fabric of Society Cr. 5**

Provides students with an opportunity to explore the experience of underserved patients as they navigate for health and community services in Southeast Michigan. Meeting with agency leaders and staff, students will learn about program design, administration and operation. Students will interact with program participants to understand their circumstances and challenges patients with limited resources face. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

**MD1 5151 Leadership and External Affairs Development (LEAD) / Medical Political Action (MPAC) 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 First Year.

**MD1 5152 Humanistic Medicine (HuMed) Cr. 5**

Provides students with an opportunity to explore the experience of being a patient, of illness, and of receiving care to foster empathy, compassion, and respect and humanism. Students will learn about the delivery of alternative care and alternative healing through a study of communication, philosophy, psychology, literature, history, artwork, and music. Students will be able to describe the history and present day of use of complementary and alternative treatment used by patients. Students will observe delivery of alternative care and demonstrate an open and non-judgmental approach to patient and practitioner use of alternative treatments for healing and wellbeing. Offered Yearly.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

**MD1 5153 Medical Research Elective 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.

**Restriction(s):** Enrollment limited to students with a class of Med First Year.

**MD1 5800 Directed Study Cr. 1-12**

Individualized curriculum designed to enhance 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.