**M1-M3 COURSES**

**Phase 1**

**M-ID 501 FUNDAMENTALS 5 Credit Hours**

This 5-week Block presents an integrated, comprehensive course that covers introductory information needed by all subsequent Blocks within Phase 1 of the curriculum. Material included in the Fundamentals Block includes content in biochemistry and cell biology, medical genetics, embryology, basic histology, general pathology, and basic pharmacologic principles. In addition, students are exposed to foundations of population health, clinical skills, and health systems quality. The block will utilize a combination of lectures, laboratories, team-based learning, case-based small groups, standardized patient encounters, patient-oriented problem-solving sessions, and flipped classroom activities as instructional methods.

Typically Offered: FALL/SPR

**M-ID 513 BLOOD, DEFENSES & INVADERS 6 Credit Hours**

This block outlines the normal functions of various cellular and non-cellular components of blood. The course elaborates on the synthesis of hemoglobin, red blood cell structural components, blood types including Rh types, pathogenesis of anemia and basic understanding of blood banking. The block provides a vision of the basic function of various white blood cells including granulocytes, monocytes, and lymphocytes and how they coordinate to mount a normal immune response and lay the foundation for further discussion on malignant hematological disorders and other abnormal processes. Students will discuss various players in the normal coagulation process including vasculature, platelets, pro-coagulants, and natural anticoagulation, which will facilitate an understanding on the diagnosis and management of various congenital and acquired bleeding and thrombotic disorders. The Defenses and Invaders portion of this block takes an integrative approach, covering the anatomy and function of the immune system, cell interactions, antibody formation, antigen-antibody reactions, cell-mediated immunity and biological effects of immunological reactions. In addition, a comprehensive approach evaluating the pathogenesis, epidemiology, physical diagnosis and treatment of bacterial, viral, fungal and parasite-mediated infectious diseases will be covered throughout the course as well. A total of 6 weeks will cover all aspects of Blood, Defenses and Invaders.

Typically Offered: FALL

**M-ID 505 CIRCULATORY 5 Credit Hours**

This is a 5-week long, organ system-specific block. The curriculum is designed to help students acquire fundamental knowledge of cardiac and vascular histology, embryology, anatomy, and physiology then apply that knowledge toward building a more comprehensive understanding of various cardiovascular diseases such as hypertension, dyslipidemia, atherosclerosis, ischemic heart disease, vasculitis, cardiomyopathies, heart failure, congenital cardiac disorders, valvular heart disease, pericardial diseases, cardiac dysrhythmias, arterial and venous vascular disorders, traumatic and mechanical disorders of the cardiovascular system, and heart disease caused by infectious agents. In addition, students will be exposed to fundamentals of hospital systems, population health, communication skills, evidence based medicine, professionalism and resilience as it pertains to the circulatory system. Instruction will be provided in the form of lectures, laboratories, team-based learning, case-based small groups, standardized patient encounters, patient-oriented problem-solving sessions, and flipped classroom activities.

Typically Offered: FALL/SPR

**M-ID 506 RESPIRATORY 4 Credit Hours**

This 4-week Respiratory block will be a guided expedition of the anatomy, physiology, biochemistry, pharmacology, genetics, histopathology, and imaging of the respiratory system. Learning modalities will involve interactive lectures, 'flipped classroom' activities, small group discussions and case-based explorations of the normal state and the variety of diseases that afflict the respiratory system. Students will obtain knowledge of the structure and function of the entire respiratory system with comparative analysis of respiratory mechanics, gas exchange and oxygen as well as carbon dioxide homeostasis under normal and diseased conditions. They will differentiate important diseases affecting the lung parenchyma, airways, blood vessels, pleura and check wall, and distinguish the impact of sleep-disordered breathing and select appropriate therapy options. Students will identify changes in the nose, throat and respiratory system in gross anatomy, imaging, and histology, in addition to taking a comprehensive history and physical examination, to include consideration of environmental factors.

Typically Offered: FALL/SPR

**M-ID 507 RENAL 3 Credit Hours**

The renal curriculum will deliver high quality education with a strong foundation in the basic sciences as well in clinical nephrology. The initial phase of the 3-week block will focus on providing fundamental knowledge of renal anatomy, histology, physiology and pharmacology. Teaching methods for these topics will be via traditional lecture, interactive lectures and laboratories. The remainder of the curriculum will focus on clinical nephrology with the following areas to be covered: electrolyte disorders, acid-base disorders, introduction to clinical nephrology, acute renal failure, chronic kidney disease, glomerular diseases and hypertension. The Nebraska Medicine Division of Nephrology faculty will deliver this learning content via a mix of both traditional lectures as well as active learning methods.

Typically Offered: FALL/SPR
**M-ID 508 NEUROSCIENCES 8 Credit Hours**
This 8-week neuroscience block covers the basic science core concepts of neuroanatomy and neurophysiology that are necessary for a medical practitioner to clinically evaluate a patient with neurological and psychiatric diseases. Building upon this foundation, the pathophysiology of diseases affecting the brain and special senses and the clinical presentation of these diseases are covered. Treatment of these diseases, including pharmacological, is integrated with the clinical focus. The student will learn how to use the physical examination to assess the patient with diseases affecting the nervous system and special senses. Learning methods used in the block will be lecture, labs, small group and clinical skills sessions.

Typically Offered: FALL/SPR

**M-ID 510 GASTROINTESTINAL 6 Credit Hours**
Gastroenterology is a 6-week block, which will provide future physicians with a strong foundation in the structure and function of gastrointestinal organs. This block will cover preclinical concepts in structure, function, and disease. The gastrointestinal system includes the esophagus, stomach, small and large intestine, liver, and pancreas. The development, anatomy, histology, and physiology of each of these major organs will be discussed in detail. Additionally, the structure and function of the mouth and salivary glands will be included, as well as the anterior abdominal wall. Nutrition and digestion will be discussed. Disease processes of these organs and body regions will be presented, focusing on the molecular and physiological mechanisms of disease and basic approaches to medical and surgical treatment. Students will be introduced to history taking and physical exam skills relevant to the organ systems and body regions of the gastrointestinal tract.

Typically Offered: FALL/SPR

**M-ID 511 ENDOCRINE 3 Credit Hours**
The goal of this 3-week block is to apply the knowledge of endocrine physiology to understand the pathophysiology of the endocrine system, and relate this information to the diagnosis and treatment of endocrine diseases. Topics covered include endocrine cells, tissues, structure, functions and hormone synthesis, secretion, action and metabolism. This includes the hypothalamus, pituitary, thyroid, adrenal, parathyroid, metabolic bone disease, the endocrine pancreas, glucose homeostasis, diabetes and obesity. Students will acquire the knowledge by interactive lectures, team-based learning, case vignettes and small group sessions.

Typically Offered: FALL/SPR

**M-ID 512 GU/REPRODUCTIVE/DEVELOPMENTAL 6 Credit Hours**
In this 6-week block, the students will apply basic science knowledge to explain the normal and pathological states of the urinary tract and reproductive systems, and relate that knowledge to the diagnosis, treatment and prevention of disease. Methods of instruction will include small group sessions, problem based learning, E-modules, online case vignettes, and lectures with an interactive approach.

Typically Offered: FALL/SPR

**M-ID 532 ACUTE CARE & CLINICAL TRANSITIONS 4 Credit Hours**
The 2 week acute care block is designed to facilitate the transition to clinic practice. This block will focus on differential diagnosis and initial work up for common chief complaints with emphasis on severe or time sensitive diagnoses. Students will learn to integrate basic science knowledge in the context of clinical presentation through interactive lectures; case based small groups and simulation. Challenges of the clinic environment such as personal wellness, professionalism, negotiating difficult patient interactions and tips and tricks for clerkship success will be discussed. Common clinical procedures will be introduced in skills labs and simulations. BLS certification, EPIC training, and a full HP OSCE will also be required prior to beginning the clinical clerkships. Update: This course will be expanded by an additional two weeks. The original content from the Acute Care 2 week course will not change. The expansion will include new content from geriatrics, pediatrics, populations medicine and patient centered care. This content will be delivered through a series of lectures, small group activities and multiple standardized patient interactions.

Instructor: Amy Cutright, MD Lisa Meinke, MD
Typically Offered: SPRING

Capacity: 135

**Phase 2 (Class of 2021)**

**PEDS 703 BASIC REQ CLERKSHIP 6-8 Credit Hours**
The Pediatrics clerkship is divided into two tracks, the "University" track and the "Community" track. The University track is taught in Omaha and consists of a two-week block on the inpatient service and a three-week block in the outpatient clinic. In addition, one-week blocks are spent at Munroe-Meyers Institute, the newborn nursery, and at a private clinic in Omaha. The Community track is taught at various sites across Nebraska and consists of an intensive exposure to primary care Pediatrics as practiced in a rural setting. The goals and curriculum for the clerkship are the national standard curriculum for Pediatrics established by the Council on Medical Student Education in Pediatrics. The curriculum is delivered through lecture, self-study, computer-aided instruction, and clinical teaching.

Prerequisite: Junior Status
Typically Offered: FALL/SPR

**FMED 705 COMMUNITY PRECEPTOR 6-8 Credit Hours**
This is a clerkship which allows junior students an "immersion" experience in Family Medicine in a rural Nebraska community. The student will participate in the care of the preceptor's patients under the direct supervision of the preceptor. Students will care for patients in the office, hospital, and extended care facilities. A written report about a community health project is required. A portion of the core clerkship content will be delivered on site via the Internet.

Prerequisite: Junior Status
Typically Offered: FALL/SPR
IMED 705 BASIC REQ CLERKSHIP 9-12 Credit Hours
The student spends one half of the twelve week clerkship as an integral member of a health care team responsible for the care of inpatients on the Internal Medicine service at either the Omaha Veterans Administration Hospital or UNMC. During the other half of the clerkship, students may elect a variety of medicine subspecialties and outpatient clinical experiences at the University of Nebraska Medical Center, the Omaha Veteran's Administration Hospital and private practice internists. Throughout the clerkship, students will assume responsibility for the initial patient assessment and daily care commensurate with their level of training, supervised by Internal Medicine residents and attending faculty. Skills in patient interaction, decision making, and the fundamentals of Internal Medicine will be reviewed in formal sessions and daily attending rounds.
Prerequisite: Junior Status
Typically Offered: FALL/SPR

OBGY 705 BASIC REQ CLERKSHIP 4.5-6 Credit Hours
Junior-year students are assigned to the University Hospital and affiliated hospitals for inpatient experience and to the University Hospital Clinics for outpatient obstetric and gynecologic clinics. They will follow the progress of patients in labor, assist at operative procedures, and maintain a complete record until the patient is discharged from the hospital. Outpatient experience will include participation in the following clinics: normal and complicated obstetrics, gynecology, and family planning. Seminars, conferences, and ward rounds are scheduled regularly.
Prerequisite: Junior Status
Typically Offered: FALL/SPR

PSYC 705 BASIC REQUIRED CLERKSHIP 4.5-6 Credit Hours
The student will spend six weeks in this required clerkship. The clinical structure of the rotation is 2 three-week rotations at two of four sites. The sites/services include the UNMC consult and liaison service, UNMC Adult Crisis Unit inpatient service, VA Medical Center inpatient psychiatric unit, and Lasting Hope Recovery Center inpatient psychiatric hospital. The student will experience outpatient psychiatric care by participating in the COPE clinic. Other electives and mentorship groups are available to enhance the psychiatry clerkship experience. Didactics are scheduled regularly.
Prerequisite: Junior Status
Typically Offered: FALL/SPR

SURG 708 BASIC REQ CLERKSHIP 6-8 Credit Hours
The third year student will have a eight week rotation on surgery. The surgical clerkship is divided between a structured educational curriculum (didactic lectures, computer-aided learning, and skills workshops), a four week clinical rotation on general surgery, and two week rotations on two of five surgical specialties (urology, orthopedics, ophthalmology, neurology, and ENT). The general surgical portion of the clerkship will place students at the Nebraska Health System, VA Medical Center, Immanuel, or the Nebraska Methodist Hospital. Students will be involved as an integral part of the ward team and will participate in morning and afternoon rounds. Mandatory attendance at lectures and skills workshops presented throughout the rotation is required and takes precedence over clinical activities.
Prerequisite: Junior Status
Typically Offered: FALL/SPR