First Semester:

1) Anatomy – 220 Hours

Medical Gross Anatomy encompasses the regional and functional anatomy of the human body. The course is divided into two components: lecture and laboratory. The lecture series consist of the descriptive and topographic aspects of gross anatomy and includes such topics as:(1) surface anatomy; (2) the anatomical basis of physical diagnosis and therapy; (3) the morphological bases of physiological and metabolic processes;(4) the evolution of the locomotor apparatus and its maladaptations; (5) the natural history of the head; (6) brief discussions of the history of anatomy with special attention to etymology and the acquisition of an anatomical vocabulary. Students will be placed into teams for the laboratory component. Each team of students will perform complete dissections of the eight regions of the human body in the following sequence: back; thorax; abdomen; perineum (partial); pectoral and pelvic limbs; neck and head. Laboratory work will be supplemented with osteological specimens, slides, models and X-rays.

2) Biochemistry – 120 Hours

The Medical Biochemistry Course is designed to provide students with a general foundation for understanding the molecular basis of human growth, metabolism and disease and acquire the biochemical background required for successful progression in the basic biomedical and clinical sciences.

3) Histology – 70 Hours

Histology teaches microanatomy of the human body (i.e., cellular structure). Histology is taught using a combination of lecture and laboratory components. Lectures are held daily and lab sessions are held once or twice weekly. Lab sessions complement lectures, showing relevant histologic slides students must learn for exams.

4) Embryology – 40 Hours

This course provides basic information about critical events in human development. This course will describe the classical embryologic events, from formation of gametes to birth, that result in a newborn child and the genes that regulate them. It will also focus on clinical problems associated with birth defects and their means of prevention.

Second Semester:

1) Physiology – 120 Hours

Physiology is the study of function encompassing all levels of organization - from the molecular level through the whole organism. Physiology utilizes fundamental principles of physics, physical chemistry, and biochemistry to understand the body's regulatory mechanisms. Importantly, physiology is not just a collection of facts but is an ordered analytical process - the same process used by physicians and surgeons to analyze pathophysiology of disease. The Medical Physiology course is designed to teach you how to think with a physiological perspective, in addition to teaching you the factual components of functional mechanisms. The lectures are designed to help students organize and integrate into a total picture the major elements and concepts that constitute human physiology.

2) Microbiology – 80 Hours

This Microbiology course provides learning opportunities in the basic principles of medical microbiology and infectious disease. It covers mechanisms of infectious disease transmission, principles of aseptic practice, and the role of the human body's normal microflora. The biology of bacterial, viral, fungal, and parasitic pathogens as well as the diseases they cause are covered. Relevant clinical examples are provided. The course provides the conceptual basis for understanding pathogenic microorganisms and the mechanisms by which they cause disease in the human body. It also provides opportunities to develop informatics and diagnostic skills, including the use and interpretation of laboratory tests in the diagnosis of infectious diseases.

3) Neuroanatomy – 60 Hours

The Neuroanatomy Course covers various topics related to the structure and the function of the central and the peripheral nervous systems. Topics will include basic concepts in neurophysiology, neurodevelopment, neurochemistry, gross and micro-neuroanatomy, neuroimaging methods, functional systems, and neuropathology. Regional neuroanatomy will be combined with functional importance of neural systems. Thus, the student should come away with a thorough knowledge of both the structure of the nervous system and how the nervous system works to impact behavior.

4) Embryology – 40 Hours

The Human Genetics course is designed to introduce fundamental concepts and technological advances in the study of human genetics as they pertain to medical practice. Each of the major subspecialties will be addressed: **(1)** Cytogenetics **(2)** Molecular Genetics **(3)** Biochemical Genetics **(4)** Clinical Genetics **(5)** Genetic Counseling

Reproductive and perinatal genetics is introduced but will be covered in depth during the third-year core clerkship rotation in Obstetrics, Gynecology, and Reproductive Sciences.

5) Immunology – 40 Hours

Immunology concerns the host's defense against infections and cancer. The Immunology & Allergy course covers the cellular and molecular mechanisms by which pathogens and cancerous cells are recognized and eradicated, and how pathogens and tumors attempt to escape elimination.

6) Behavioral Science – 40 Hours

The Behavioral Sciences course is the study of human behavior as it relates to health and medicine. This course encompasses the science of human behavior in as it relates to the practice of medicine and compliance to treatment. The basis of psychological development and the impact of psychological stressors are presented. In addition, specific psychiatric disorders, which will be presented in detail in the Psychiatric course later in the medical school curriculum, will be introduced during this course.

7) Epidemiology – 60 Hours

The Epidemiology and Public Health course covers application of epidemiologic procedures to the understanding of the occurrence and control of conditions such as infections and chronic diseases, mental disorders, community and environmental health hazards, accidents, and geriatric problems.

8) Nutrition – 20 Hours

The Nutrition course is designed to provide students with an overview of the clinical aspects of nutrition. This course incorporates and relates material learned in the basic science courses, including biochemistry, physiology and pathology to the diseases associated with disturbances in homeostasis consequent to inappropriate nutritional status. Included in this course is an introduction to nutritional requirements, and the diagnosis and treatment of diseases that result from a poor nutritional status.

Third Semester:

1) Pharmacology – 120 Hours

The Pharmacology course is designed to provide medical students a basis from which they can apply their knowledge of pharmacology to the prevention and treatment of disease and to assess the usefulness of future therapeutic agents in their practice of medicine. This course encompasses the concepts of pharmacodynamics (e.g., drug-receptor interactions, signaling mechanisms, and dose-effect relationships) and pharmacokinetics (e.g., drug absorption, distribution, metabolism, and elimination). Additionally, the course emphasizes the biochemical and physiological bases for understanding drug action, and it introduces many major classes of drugs. Groups of drugs which are specifically considered include those acting on the autonomic nervous system, those most prominently affecting the immune system, and antineoplastic, antimicrobial, and antiparasitic compounds.

2) General Pathology – 100 Hours

The General Pathology course covers the basic pathophysiology of mechanisms of disease in medicine. The knowledge gained from study of these basic mechanisms will be applied to the Systemic Pathology Course, as well as to the 3rd and 4th year clinical rotations. This pathology course will incorporate gross pathologic, microscopic, and radiologic material to assist you in understanding the disease processes and prepare you for licensing examinations. The knowledge gained from a study of pathology will integrate with other courses to provide you with the means for assessment and diagnosis of patients under your care.

3) ENT – 20 Hours

The Dermatology course is designed to provide students with an overview of the clinical aspects of dermatology. This course incorporates and relates material learned in the basic science courses, including histology, physiology, microbiology, immunology and general pathology to the practice of dermatology. Included in this course is an introduction to clinical findings, differential diagnosis, treatment and prognosis associated with diseases of the skin.

4) Respiratory Medicine – 20 Hours

The Respiratory Medicine course is designed to provide students with an overview of the clinical aspects of the treatment of disorders of the respiratory tract. This course incorporates and relates material learned in the basic science courses, including histology, physiology, microbiology, immunology and general pathology to the practice of respiratory medicine. Included in this course is an introduction to clinical findings, differential diagnosis, treatment and prognosis associated with diseases of the respiratory tract.

5) Neurology – 20 Hours

The Neurology course is designed to provide students with an overview of the clinical aspects of the treatment of neurological disorders. This course incorporates and relates material learned in basic science courses, including histology, physiology, microbiology, immunology and pathology to the practice of neurology. Included in this course is an introduction to the clinical findings, differential diagnosis, treatment and prognosis associated with neurological diseases.

6) Fluids/Electrolytes – 20 Hours

The Fluid/Electrolytes and Renal course is designed to provide students with an overview of the clinical aspects of the treatment of fluid and electrolyte disorders and kidney disease. This course incorporates and relates material learned in the basic science courses, including histology, physiology, microbiology, immunology and general pathology to the treatment of fluid and electrolyte disorders and kidney disease. Included in this course provides an overview to the diagnosis and differential diagnosis, treatment and prognosis of disorders associated with fluid and electrolyte imbalance and diseases of the kidney.

7) Endocrinology – 20 Hours

The Endocrinology course is designed to provide students with an overview of the clinical aspects of endocrine disorders. This course incorporates and relates material learned in the basic science courses, including physiology, microbiology, immunology and pathology to the understanding of the basic and clinical implications of endocrine disorders. Included in this course is an introduction to common clinical presentations, differential diagnosis, treatment and prognosis associated with diseases of the endocrine system.

8) Dermatology – 20 Hours

The Dermatology course is designed to provide students with an overview of the clinical aspects of dermatology. This course incorporates and relates material learned in the basic science courses, including histology, physiology, microbiology, immunology and general pathology to the practice of dermatology. Included in this course is an introduction to clinical findings, differential diagnosis, treatment and prognosis associated with diseases of the skin.

9) Legal Medicine – 20 Hours

The Legal Medicine and Medical Ethics course discusses ethical and legal principles and responsibilities of physicians. Emphasis includes an appreciation and understanding of the relationship of current ethical standards to the health care team and health care delivery.

10) Anesthesiology – 20 Hours

The Anesthesiology course is taught by a practicing Anesthesiologist and is designed to provide students with an overview of the clinical practice of anesthesiology. The student will learn the basic anesthetic principles which govern inhalation, IV and local anesthesia. Emphasis will be directed toward the understanding of physiologic and pharmacologic mechanisms encountered in the daily practice of anesthesiology.

11) Tropical Medicine & Parasitology – 40 Hours

The Tropical Medicine & Parasitology Course is designed to provide students with both comprehensive and selected detailed information on the fundamentals of diagnosis, treatment, pathology, transmission, and control of human parasites. A large portion of the above is learned simply by knowing the life cycles of the parasites in question and, thus, how to break the chain of infection. Therefore, much of this course will concentrate on the basic life-cycles of parasites. Additionally, the natural history and epidemiology of the major infectious and parasitic diseases that occur in developing countries will be presented.

12) Psychiatry – 40 Hours

This course encompasses the diagnosis and treatment of psychiatric disorders. The basis of psychological disorders will be presented with tests and techniques used for diagnosis. Material presented in previous basic sciences courses - biochemistry, physiology, neuroanatomy, neurology and pathology will be integrated and applied to the evaluation of psychiatric disorders. Included in this course is an overview of the clinical practice of psychiatry, which includes diagnosis, differential diagnosis, treatment and prognosis associated with psychiatric disorders.

Fourth Semester:

1) Gastroenterology – 20 Hours

The Gastroenterology course is designed to provide students with an overview of the clinical aspects of gastroenterology. This course incorporates and relates material learned in the basic science courses, including histology, biochemistry, physiology, microbiology, immunology and pathology to the diseases of the gastrointestinal (GI) tract. Included in this course is an introduction to the clinical findings, differential diagnosis, treatment and prognosis associated with disorders of the GI tract.

2) Hematology – 20 Hours

The Hematology course is designed to provide students with an overview of the clinical aspects of disorders of the blood. This course incorporates and relates material learned in the basic science courses, including histology, physiology, microbiology, immunology and pathology to the understanding of the basic and clinical implications of blood disorders. Included in this course is an introduction to common clinical presentations, differential diagnosis, treatment and prognosis associated with blood diseases.

3) Oncology – 20 Hours

The Oncology course is designed to provide students with an overview of the clinical aspects of cancer: prevention, diagnosis, primary treatment, management of complications and paraneoplastic syndromes. This course incorporates and relates material learned in the basic science courses, including histology, physiology, microbiology, immunology, genetics, and pathology to the study of cancer.

4) Orthopedics – 20 Hours

The Orthopedics course is designed to provide students an introduction to the diagnosis and treatment of the disorders of the musculoskeletal system. This course is taught by a practicing orthopedic surgeon, who will present an overview of the principles of orthopedic medicine to the students.

5) Principles of Clinical Medicine – 20 Hours

The Principles of Clinical Medicine course is designed to provide students with an introduction to the practice of medicine. Students are introduced to the sequence of diagnostic inquiries and laboratory tests that are implemented during the evaluation of specific medical problems. Established techniques for obtaining the history of the complaint, physical examination, diagnostic tests and the assessment and therapeutic plan are presented in preparation for the physical diagnosis course and, ultimately, clinical practice.

6) Radiology – 20 Hours

The Radiology course is taught by a practicing Radiologist and is designed to provide students with an overview of the clinical practice of radiology. The student will learn the basic principles of radiology, with the emphasis directed toward the understanding of the use of X-rays, MRIs and CAT scans to assist in confirming.

7) Ophthalmology – 20 Hours

The Ophthalmology course is designed to provide students with an overview of the clinical aspects of ocular disease. An overview of the clinical practice of ophthalmology is presented, including the most common symptoms of ocular disease, the eye examination, and specific disorders of the eye. This course incorporates and relates material learned in the basic science courses, including histology, physiology, microbiology, immunology and pathology to the understanding of the basis of ocular disorders. Included in this course is an introduction to common clinical presentations, differential diagnosis, treatment and prognosis associated with eye disease.

8) Surgery – 60 Hours

The Surgery and Orthopedic Surgery course is designed to provide students an overview of the practice of general and orthopedic surgery. It is taught by practicing general surgeons, orthopedic surgeons and neurosurgeons who will provide students with an overview of methods and techniques used for the diagnosis and the repair of injuries and disorders requiring surgery.

9) Obstetrics/Gynecology – 80 Hours

The Obstetrics and Gynecology course is designed to encompass the basic information a physician will need for the primary care of women. It is structured to to facilitate efficient, focused learning, based on the "Instructional Objectives for a Clinical Curriculum in Obstetrics and Gynecology, 7th ed.," of the Association of Professors of Gynecology and Obstetrics. These national standards are used to organize most Ob-Gyn clerkships in the United States and Canada, and are used as a guideline in the development of national standardized exams.

10) Pediatrics – 60 Hours

The Pediatrics course is designed to provide students with an introduction to the practice of pediatric medicine. Established techniques used to conduct portions of the physical examination of infants, children and adolescents that require different approaches or techniques from those used in the physical examination of adults. Additionally, this course incorporates and relates material learned in basic science courses,

including histology, physiology, microbiology, immunology and pathology to the diagnosis and treatment of childhood diseases.

11) Systemic Pathology – 80 Hours

The emphasis of the Systemic Pathology course shifts from the fundamental mechanisms of cell, tissue structural/functional changes and major disease processes to specific examples of the major diseases, which affect each of the vital tissue and organ systems. Particulars of cause and effect, including genetic, molecular, metabolic, infectious, immunologic, nutritional and environmental factors are discussed in conjunction with pathophysiologic manifestations, the typical course or progression of each disease, and the potential for complications.

12) Geriatric Medicine – 20 Hours

The Geriatric Medicine course is designed to provide students with an overview of the clinical aspects of the specialized management of geriatric patients. This course focuses on methods used to approach older patients, disorders that are more commonly seen in the older person, specialized therapies and long-term management strategies, and important considerations that must be taken into account in the pharmacological management of geriatric patients.

13) Child Abuse & Human Development – 20 Hours

The Child Abuse and Human Sexuality Course is designed to examine the historical and social dynamics which foster an abusive family environment. The most common injuries associated with child abuse are presented, with strategies physicians may use to diagnose child abuse. Current requirements for and procedures for reporting child abuse are emphasized.

Fifth Semester:

1) Infectious Disease – 40 Hours

The Infectious Diseases course is designed to study in detail infectious diseases in organ systems. The biological characteristics and pathologic mechanisms of infectious bacteria, viruses, fungi and parasites are covered. Functional and clinical implications are presented in the form of relevant clinical case examples that include the use of laboratory testing for diagnosis and treatment. This course incorporates and relates material learned in the basic science courses, including histology, physiology, microbiology, immunology and pathology to the study of infectious diseases.

2) Molecular Biology – 40 Hours

The Molecular Biology course is a study of eukaryotic cell structures and functions. Special emphasis is placed on the role that biomolecules such as proteins and nucleic acids play in the molecular biology of metabolic regulation. The clinical and molecular nature of cancer is also discussed.

3) Cardiology – 40 Hours

The Cardiology course is designed to provide students with an overview of the clinical aspects of disorders of the heart. This course incorporates and relates material learned in the basic science courses, including histology, biochemistry, physiology, microbiology, immunology and pathology to the diseases of the heart. Included in this course is an introduction to the clinical findings, differential diagnosis, treatment and prognosis associated with disorders of the heart.

4) Physical Diagnosis – 80 Hours

The Physical Diagnosis course is designed to provide students with knowledge and skills to recognize the physical signs of systemic disease. The students should then be able to do a preliminary evaluation of their finding and its relationship to the management of their patient. In the class the student learns to recognize physical signs of systemic disease while learning the techniques of a medical history and physical. This class provides an understanding of the basic techniques in procuring a medical history and in performing a physical examination of the patient. The student should then be able to organize this data and correctly assess the patient's physical status.

5) Forensic Medicine – 40 Hours

The Forensic Medicine course is an overview of medicolegal death investigation from the perspective of the forensic pathologist. The curriculum delves into the substance and mechanics of forensic pathology

dealing with natural disease, blunt force trauma, sharp force trauma, gunshot injuries, chemical injuries, child deaths, and many other essentials of forensic medicine.

6) Urology – 20 Hours

The Urology course is designed to provide students with an overview of the clinical aspects of disorders of the genitourinary tract. This course incorporates and relates material learned in the basic science courses, including histology, physiology, microbiology, immunology and pathology to the understanding of the basic and clinical implications of blood disorders. Included in this course is an introduction to common clinical presentations, differential diagnosis, treatment and prognosis associated with disorders of the genitourinary tract.