

**MSMS 501****Medical Ethics**

1 Credit Hour

This course will attempt to provide didactic experiences for medical students in specific areas within the field of medical ethics. The need for these experiences stems from the recognition that ethical dilemmas are inherent in medical care. Although dramatic issues such as cloning, abortion and organ donation have strong ethical implications, it is important to realize that the practicing doctor will face ethical decisions every day while solving more commonplace problems. Most everyday ethical questions have well-accepted answers; only the most difficult ethical questions seem to defy resolution. Even so, it is important for physicians to develop an understanding of the principles of medical ethics and a system of ethical reasoning that will result in consistent decisions.

**MSMS 502****Interprofessional Perspectives in Health Disparities**

1 Credit Hour

This course is designed to provide a general overview of gaps in health outcomes associated with health disparities. A special emphasis will be given to the social determinants of health such as race/ethnicity, social class, socioeconomic status, sex, sexuality, nationality, and migration status. The course will focus on the impact of health disparities' impact at multiple system's levels (e.g. Individual, patient-clinician, health care system, etc.).

**MSMS 504****Gross Anatomy, Embryology, and Imaging**

9 Credit Hours

The Human Gross Anatomy, Embryology & Imaging course consists of a detailed study of the normal structure, development, and organization of the human body. This course undertakes a regional approach rather than a systemic approach to Human Gross Anatomy, Embryology & Imaging is distributed into three block contents. Gross structures are studied in the laboratory by software modeling. The radiology component of Gross Anatomy serves as the introduction to radiology and prepares the student for further development. Lectures stress the contribution of developmental events to gross anatomical organization and the correlation of this organization with clinically relevant conditions.

**MSMS 505****Histology and Cell Biology**

4 Credit Hours

Study of the many different aspects of the internal structure of cells, tissues and organs in the human body, presenting a comprehensive survey of many of their complex interrelationships. The course begins with the study of the cell, then types of tissue and finally normal tissues as found in every organ. Clinical correlations related to symptoms, photomicrographs of diseased tissues or organs, short histopathological descriptions, and diagnostics labs of specific diseases are presented. Another objective is to describe the most common conditions related to each topic.

**MSMS 506****Physiology I**

4 Credit Hours

Physiology is the comprehensive study of the function of the human body on an organ system basis. Emphasis is on the integration of functions from the cellular level to that of the total organism and the application of physiology concepts to problem solving. The following units will be covered in the Physiology I course: Membrane and Action Potentials, Cellular and Systemic Physiology of the Cardiovascular and Respiratory Systems.

**MSMS 508****Medical Biochemistry I**

5 Credit Hours

Provides students with a complete understanding at the molecular level, of all the chemical processes associated with living cells. Focused on understanding the basic biochemical concepts that deal with life processes, through a cellular, tissue, organ, and system approach. Biochemistry I course covers the following topic: Biological Molecule structure and function, Cell cycle regulation, Genetic inheritance, Gene-gene interactions, Gene environmental interactions, and Medical genetics. Topics are presented through case studies or in relevance to health and disease.

**MSMS 510****Medical Microbiology I**

4 Credit Hours

This course teaches students about all the most common pathogens involved in infectious illness and their characteristics. This course is focused on teaching clinical knowledge and problem solving skills in the following topics: Immunology, Virology, Medical Mycology, Parasitology, Bacteriology, and Bacterial Genetics. Emphasizing the importance skills for any physicians to recognize, early in the course of any infectious disease, its etiologic agents.

**MSMS 512****Neuroscience**

5 Credit Hours

The Neuroscience Course will teach you brain function in health and disease. The course covers neuroanatomy/histology and neurophysiology. This course is broken up into the following topics: Introduction to the nervous System, Embryonic nervous system development, Electric signaling by neurons, The spinal cord, Brainstem organization, Meninges, CSF and Ventricular System, Cranial Nerves, Sensory systems, Motor systems, Integrative systems, and Neuroanatomy Laboratory. All topics are presented through case studies, clinical correlations, and in relevance to medical practices.

**MSMS 604****Physiology II**

4 Credit Hours

Physiology is the comprehensive study of the function of the human body on an organ system basis. Emphasis is on the integration of functions from the cellular level to that of the total organism and the application of physiology concepts to problem solving. The following units will be covered in the

Physiology II course: Gastrointestinal, Renal and Endocrine Physiology Systems.

MSMS 606

**Medical Biochemistry II**

5 Credit Hours

Provides students with a complete understanding at the molecular level, of all the chemical processes associated with living cells. Focused on understanding the basic biochemical concepts that deal with life processes, through a cellular, tissue, organ, and system approach. Biochemistry II course covers the following topic: Metabolic variations of molecules, Metabolic pathways integration, Metabolic variation among different tissues. Topics are presented through case studies or in relevance to health and disease.