

ANATOMICAL SCIENCES EDUCATION

GMS 5057 Medical Cell Biology 3 Credits

Grading Scheme: Letter Grade

Medical Cell Biology

GMS 5604 Medical Human Embryology 3 Credits

Grading Scheme: Letter Grade

Providing the developmental basis for understanding the anatomical relationships and organization of major structures within the thorax, abdomen, head/neck, and back/limbs regions of the body. Congenital malformations associated with given organ systems will also be discussed.

Prerequisite: GMS 5605: Medical Anatomy

GMS 5605 Medical Anatomy 3 Credits

Grading Scheme: Letter Grade

Medical human anatomy, using a combined regional and systemic approach to examine the relationships and organization of major structures within the thorax, abdomen, head/neck, and back/limbs regions of the body; correlations with diagnostic imaging and pathophysiology; medical-based scenarios to develop problem solving and critical thinking skills.

Prerequisite: Bachelor's degree.

GMS 5606L Medical Human Anatomy Laboratory 3 Credits

Grading Scheme: Letter Grade

Medical Human Anatomy Laboratory

Prerequisite: Bachelor's degree.

GMS 5613 Medical Human Anatomy by Diagnostic Imaging 3 Credits

Grading Scheme: Letter Grade

Focusing on the clinically relevant relationships of major anatomical structures within the thorax, abdomen, head/neck, and back/limbs regions of the body. Medically based scenarios will be used to develop problem solving and critical thinking skills. Anatomical imaging will be correlated to transverse, sagittal and coronal human sections.

Prerequisite: GMS 5605: Medical Anatomy

GMS 5630 Medical Histology 4 Credits

Grading Scheme: Letter Grade

Correlating diagnostic imaging of normal and pathologic tissues, and medical-based scenarios, in order to develop problem solving and critical thinking skills, using microscopic structure and function of human cells and tissues.

Prerequisite: Bachelor's degree.

GMS 6061 Nuclear Structure and Dynamics 1 Credit

Grading Scheme: Letter Grade

Cell biology of the nucleus. Offered in odd-numbered years.

Prerequisite: GMS 6001 or consent of instructor.

GMS 6062 Protein Trafficking 1 Credit

Grading Scheme: Letter Grade

Movement of proteins in cell. Offered in even-numbered years.

Prerequisite: GMS 6001 or consent of instructor.

GMS 6063 Cell Biology of Aging 1 Credit

Grading Scheme: Letter Grade

Recent developments in the field of aging.

Prerequisite: GMS 6001 or consent of instructor.

GMS 6064 Tumor Biology 1 Credit

Grading Scheme: Letter Grade

Current understanding of the molecular basis of cancer. Offered in odd-numbered years.

Prerequisite: GMS 6001 or consent of instructor.

GMS 6335 Advanced Stem Cell Biology: Tissue Engineering 1 Credit

Grading Scheme: Letter Grade

Current state of the art in using stem cells and other technologies to engineer tissues and organs for therapeutic use.

Prerequisite: GMS 6331 and GMS 6336

GMS 6421 Cell Biology 4 Credits

Grading Scheme: Letter Grade

Fundamental mechanisms of cell functions, specializations, and interactions that account for the organization and activities of basic tissues.

Prerequisite: undergraduate biochemistry or cell biology or consent of instructor. Taught in conjunction with 1st year IDP core course.

GMS 6607C Essential Human Anatomy 4 Credits

Grading Scheme: Letter Grade

Human dissection and application of anatomical principles underlying clinical sciences including systemic approach to radiographic interpretation. Offered summer term B.

Prerequisite: consent of instructor, recommendation of graduate adviser, good standing in approved master's or doctoral program.

GMS 6609 Advanced Gross Anatomy 2-4 Credits, Max 6 Credits

Grading Scheme: Letter Grade

Regional and specialized anatomy of the human body taught by laboratory dissection, conferences, and demonstrations.

GMS 6610 Anatomy of the Peripheral Nervous System 3 Credits

Grading Scheme: Letter Grade

The Anatomy of the Peripheral Nervous System Course will be presented by a combination of online lectures and online laboratory sessions. The anatomy and function of spinal and cranial nerves of the human body will be discussed and observed in the Vivile Human Body software program. Anatomical imaging will be correlated to transverse, sagittal, and coronal human sections. Medical-based scenarios, e.g., nerve lesions, will be used to promote retention and recall.

Prerequisite: Students are expected to have already taken GMS5605 Online Medical Human Anatomy; GMS5606 Medical Human Anatomy Laboratory and permission of instructors.

GMS 6635 Organization of Cells and Tissues 3 Credits

Grading Scheme: Letter Grade

Three credit full semester course covering tissues and nine organ systems related to cell and tissue biology.

Prerequisite: GMS 6001 or consent of instructor.

GMS 6647 Transcriptional and Translational Control of Cell Growth and Proliferation 1 Credit

Grading Scheme: Letter Grade

Fundamental mechanisms that govern cell growth and proliferation.

Prerequisite: 1st and 2nd Yr IDP Students.

GMS 6690 Molecular Cell Biology Journal Club 1 Credit, Max 12 Credits

Grading Scheme: Letter Grade

Faculty-student discussion of research papers and topics.

GMS 6691 Special Topics in Cell Biology and Anatomy 1-4 Credits, Max 10 Credits

Grading Scheme: Letter Grade

Readings in recent research literature of anatomy and/or applied disciplines including cell, developmental, and reproductive biology.

**GMS 6692 Research Conference in Anatomy and Cell Biology 1 Credit,
Max 12 Credits**

Grading Scheme: Letter Grade

Research reports and discussions of current research by graduate students, faculty, and invited speakers.

GMS 6934 Cancer Biology Data Discussion 1 Credit

Grading Scheme: Letter Grade

Research reports and discussions of current Cancer Biology research performed by graduate students, faculty, and invited speakers.