

ANATOMY (ANAT)

ANAT 1000 - Basic Human Anatomy

Credit(s): 3 Credits

Gross and microscopic structure of human body; emphasis on anatomical concepts, terminology, and correlation of structure and function.

Restrictions:

Enrollment limited to students in the Doisy College Health Sciences or School of Nursing colleges.

ANAT 1005 - Basic Human Anatomy

Credit(s): 3 Credits

Gross and microscopic structure of human body; emphasis on anatomical concepts, terminology, and correlation of structure and function.

Attributes: Prof. Studies Students Only

ANAT 4000 - Human Gross Anatomy

Credit(s): 6 Credits

This course is an in-depth and clinically oriented study of the structure and function of human body emphasizing anatomical concepts and relationships relevant to health professionals. The course instructional format consists of a combined attribute of lecture and laboratory sessions. Cadaver dissection is required.

Restrictions:

Enrollment is limited to students with a major in Athletic Training, Exercise Science, Occupational Sciences or Occupational Therapy.

Enrollment limited to students in the Doisy College Health Sciences college.

ANAT 4300 - AHP Neurosciences

Credit(s): 5 Credits

ANAT 4980 - Advanced Independent Study

Credit(s): 1-4 Credits (Repeatable for credit)

ANAT 5000 - Human Gross Anatomy

Credit(s): 8 Credits

Structure and function of human body; emphasis on anatomical relationships and concepts and their functional significance; dissection required. (Offered each Spring)

ANAT 5050 - Human Gross Anatomy

Credit(s): 6 Credits

This course is a highly in-depth and clinically oriented study of the structure of the human body emphasizing anatomical concepts and relationships relevant to physician assistants. The course instructional format consists of a combined attribute of lecture and laboratory sessions. Cadaver dissection is required. Must be enrolled in the Physician Assistant Program in Doisy College Health Sciences.

ANAT 5100 - Human Histology and Ultrastructure

Credit(s): 5 Credits

Microscopic anatomy of human body; emphasis on relationships between structure and function of tissues and organs. (Offered every Fall semester.)

ANAT 5200 - Human Embryology

Credit(s): 2 Credits

Prenatal human development; emphasis on correlation of normal development with development of common congenital malformations. (Offered each Fall.)

ANAT 5300 - Human Systems Neurobiology

Credit(s): 5 Credits

Structure and function of the human nervous system; emphasis on neuroanatomical relationships of functional systems and neurobiological concepts of brain mechanisms. (Offered every Spring semester.)

ANAT 5400 - Human Systems Physiology

Credit(s): 4 Credits

This course will be taken concurrently with the Human Histology and Ultrastructures course (ANAT-5100) as part of the curriculum requirements for a Certificate in anatomical and Physiological Sciences. Physiology lectures will correlate with lectures and labs in ANAT 5100 which together will emphasize structure and function of cells, tissues and organ systems. Physiological principles and mechanisms will be stressed.

ANAT 5440 - Basic Research Techniques

Credit(s): 2 Credits

Fundamental techniques and instrumentation; emphasis on principles underlying preparation of material for histological, histochemical and ultrastructural examination and interpretation of results.

ANAT 5500 - Advanced Dissections in Human Anatomy

Credit(s): 1-3 Credits

This course will serve as an opportunity for students to develop advanced dissection and presentation skills as they perform prosections of human cadavers to ongoing medical, graduate and allied health anatomy courses. Students will perform regional dissections and presentations, under the guidance of anatomy faculty, with emphasis on clinical applications of gross anatomical structure and function. This course provides students with instruction and experience in teaching techniques in anatomy.

Prerequisite(s): ANAT 5000; ANAT 5100; ANAT 5200; ANAT 5300

ANAT 5750 - Intro to Anatomical Research

Credit(s): 1 Credit

Exposure to research activities in department by rotation through faculty research laboratories. (Offered every semester.)

ANAT 5950 - Special Study for Exams

Credit(s): 0 Credits (Repeatable for credit)

ANAT 5960 - Master's Project

Credit(s): 0-4 Credits (Repeatable for credit)

ANAT 5970 - Research Topics

Credit(s): 1-3 Credits

ANAT 5980 - Graduate Reading

Credit(s): 1-3 Credits

ANAT 5981 - Human Anat Independent Study

Credit(s): 1-4 Credits (Repeatable for credit)

ANAT 5990 - Thesis Research

Credit(s): 0-6 Credits (Repeatable for credit)

ANAT 6300 - Adv. Systems in Neurobiology

Credit(s): 1 Credit

This course to be taken concurrently with the Human Systems Neurobiology course. Lectures and moderated discussions of assigned journal articles will consider in greater detail the topics presented in the Human Systems Neurobiology course. Offered every Spring semester.

ANAT 6320 - Developmental Neurobiology

Credit(s): 2 Credits

A presentation of the principles and concepts that underlie the development of the nervous system. Lectures and discussions of assigned journal articles will cover neurogenesis, neuronal differentiation, the formation of functional neural circuit and regressive phenomena during brain development. Offered occasionally.

Prerequisite(s): ANAT 5300; ANAT 6300; ANAT 6340

ANAT 6340 - Cellular Neurobiology

Credit(s): 4 Credits

The basic concepts of nervous system function including neuronal structure and function, structure and function of neuroglia, physical-chemical properties of the resting neuron, electrophysiology of the active neuron, pharmacology and electrophysiology of the synapse, transmitter substances and receptors, and effector systems will be presented in this course. Offered every Fall semester.

ANAT 6370 - Chm Neuro of Basal Forebrain

Credit(s): 2 Credits

The organization of the mammalian basal forebrain, including the basal ganglia, in terms of the distribution within neurons and axon terminals of the classical and peptide neurotransmitter/neuromodulator candidates. Changes in organization that occur in neurological disorders will also be covered. Lectures and directed and independent readings will be featured. Offered every Spring semester.

Prerequisite(s): ANAT 5300; ANAT 6340

ANAT 6400 - Introduction to Neuroscience Research I

Credit(s): 2 Credits

Exposure to research activities in department by rotation through faculty research laboratories. Offered every semester.

ANAT 6410 - Introduction to Neuroscience Research II

Credit(s): 2 Credits

Fundamental techniques and instrumentation used in neurobiological research; emphasis on principles underlying techniques and interpretation of results. Offered every spring semester.

ANAT 6500 - Somatic-Visceral Interactions

Credit(s): 2 Credits

This course offers a forum for discussions on the neural control of visceral function and its modulation by somatic stimuli. Some didactic lectures will be given but most of the course will require reading and discussion of assigned journal articles and the writing of a short exam. Offered every spring semester.

Prerequisite(s): ANAT 5300; ANAT 6340

ANAT 6670 - Visual Neuroscience

Credit(s): 2 Credits

Overview of visual processing, from chemical mechanism of transduction by retinal photoreceptors to anatomical and physiological correlates of visual perception in cerebral cortex. Assigned readings on analysis of receptive field properties, mechanisms of dark and light adaptation, sensation of color and control of ocular reflexes. Human visual dysfunctions included. Offered every spring semester.

Prerequisite(s): ANAT 5300

ANAT 6890 - Anatomy & Neurobiology Seminar

Credit(s): 1 Credit

Selected topics in anatomy. Attendance and participation required for all M.S.(R) and Ph.D. students. Offered every fall and spring semester.

ANAT 6900 - Anatomy Journal Club

Credit(s): 1 Credit

Selected topics in anatomy. Attendance and participation required for all M.S.(R) and Ph.D. students.

ANAT 6950 - Special Study for Exams

Credit(s): 0 Credits (Repeatable for credit)

ANAT 6970 - Research Topics

Credit(s): 0-3 Credits (Repeatable for credit)

May be repeated. Titles of topics must be registered.

ANAT 6980 - Graduate Reading Course

Credit(s): 0-3 Credits (Repeatable for credit)

ANAT 6990 - Dissertation Research

Credit(s): 0-6 Credits (Repeatable for credit)