

HUMAN ANATOMY ANTR

Department of Radiology College of Human Medicine

350 Human Gross Anatomy and Structural Biology

Fall, Spring. 3(4-0) P: BS 111 or BS 149H or LB 145 R: Not open to freshmen or approval of department. SA: ANT 316, ANTR 316

Survey of human systemic gross anatomy with clinical illustrations. Introduction to the language of medicine. Structural basis of physiological principles. Designed for pre-professional students entering health-care disciplines.

401 Quantitative Human Biology

Spring. 3(4-0) Interdepartmental with Biomedical Engineering and Materials Science and Engineering and Radiology. Administered by Biomedical Engineering. P: (MTH 235 and PHY 184) and ((PSL 250 or concurrently) or (PSL 431 or concurrently) or (ANTR 350 or concurrently) and (CEM 141 or CEM 151) RB: (CSE 131 or concurrently) or (CSE 231 or concurrently) or PSL 410

Qualitative description and quantitative engineering analysis of selected, tractable human-biological systems. Multi-disciplinary problem-solving among medical and engineering professionals.

480 Special Problems in Anatomy

Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 15 credits in all enrollments for this course. R: Approval of department. SA: ANT 480

Topics from an anatomical field such as gross anatomy, histology, tissue culture, cytology, neurology, or embryology.

485 Directed Study in Human Prosection

Fall, Spring, Summer. 2 to 4 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P: ANTR 350 or ZOL 328 or KIN 217 R: Open only to juniors or seniors.

Prosection of selected regions and isolated structures of preserved human cadavers.

534 Cell Biology and Physiology I

Fall. 3 credits. Interdepartmental with Biochemistry and Molecular Biology and Physiology. Administered by Physiology. R: Open only to graduate-professional students in the College of Human Medicine or College of Osteopathic Medicine.

Modern concepts of cell biology as a basis for understanding the physiology of human tissues and organ systems in health and disease.

535 Cell Biology and Physiology II

Spring. 4 credits. Interdepartmental with Biochemistry and Molecular Biology and Physiology. Administered by Physiology. R: Open only to graduate-professional students in the College of Human Medicine or the College of Osteopathic Medicine.

Modern concepts of cell biology as a basis for understanding the physiology of human tissues and organ systems in health and disease. Continuation of PSL 534.

551 Medical Gross Anatomy

Fall, Summer. 6(4-6) R: Open to students in the College of Human Medicine or in the College of Osteopathic Medicine or approval of department. SA: ANT 551

Human regional gross anatomy with clinical correlations using prosections, cross-sections, medical imaging, and multimedia.

552 Medical Neuroscience

Spring. 4(3-2) Interdepartmental with Neurology and Ophthalmology and Physiology and Radiology. Administered by Neurology and Ophthalmology. R: Open only to graduate-professional students in the Colleges of Human Medicine and Osteopathic Medicine. SA: ANT 552

Correlation of normal structure and function of the human nervous system with clinical testing, classical lesions, and common diseases.

585 Directed Study in Human Prosection

Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P: ANTR 551 R: Open only to graduate-professional students in the College of Human Medicine or College of Osteopathic Medicine and approval of department.

Prosection of selected regions and isolated structures of preserved human cadavers. Oral presentation.

590 Special Problems In Human Anatomy

Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 15 credits in all enrollments for this course. RB: Admission to graduate-professional or graduate program in Health-Related Discipline or Biological Sciences R: Approval of department.

Supervised study of a specific topic from gross anatomy, histology, tissue culture, cytology, neurology, or embryology.

820 Advanced Neuroanatomy

Summer of odd years. 1 to 5 credits. A student may earn a maximum of 12 credits in all enrollments for this course. Interdepartmental with Neuroscience. Administered by Neuroscience. R: Approval of department.

Current topics in anatomy and physiology processes of central nervous system cells.

839 Systems Neuroscience

Spring. 4(4-0) Interdepartmental with Neuroscience and Pharmacology and Toxicology and Physiology and Psychology and Zoology. Administered by Neuroscience. R: Open only to graduate students in the Colleges of Human Medicine, Osteopathic Medicine, Agriculture and Natural Resources, Natural Science, Social Science, and Veterinary Medicine. SA: ANT 839

Anatomy, pharmacology, and physiology of multicellular neural systems. Sensory, motor, autonomic, and chemo-regulatory systems in vertebrate brains.

885 Vertebrate Neural Systems

Spring of odd years. 3(2-2) Interdepartmental with Neuroscience and Physiology. Administered by Neuroscience. SA: ANT 885

Comparative analysis of major component systems of vertebrate brains. Evolution, ontogeny, structure, and function in fish, amphibians, reptiles, birds and mammals.