

## HUMAN ANATOMY ANTR

### Department of Radiology College of Human Medicine

#### 350 Human Gross Anatomy and Structural Biology

Fall, Spring. 3(4-0) P: BS 161 or BS 181H or LB 145 R: Not open to freshmen or approval of department. SA: ANTR 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.

#### 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: ANTR 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.

#### 501 Introduction to Clinical Human Gross Anatomy

Summer. 6(3-6) RB: ANTR 350 or equivalent R: Open to graduate-professional students in the College of Osteopathic Medicine. Approval of department. Not open to students with credit in ANTR 551. C: RAD 503 concurrently.

Intermediate-level survey of macroscopic human structure, landmarks, and spatial relationships using laboratory prosections, multimedia, and biomedical imaging. Clinical correlations with radiological, surgical, and palpatory anatomy. Correct usage of clinical anatomical language.

#### 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.

#### 536 Basic Principles of Cell Biology and Physiology

Fall. 3(2-2) Interdepartmental with Biochemistry and Molecular Biology and Physiology. Administered by Physiology. R: Open to graduate-professional students in the College of Osteopathic Medicine.

Modern concepts of cell biology as a basis for understanding the structure (histology) and function (physiology) of human tissues in health and disease.

#### 541 Gross Anatomy for Nurse Anesthesia

Fall, Summer. 4(3-2) R: Approval of department.

Gross anatomy of the human body using prosections, medical imaging, clinical correlations, case studies, video tapes and computer aided instruction.

#### 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: ANTR 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: ANTR 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 Independent Study in Clinical Human Morphology

Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 10 credits in all enrollments for this course. RB: Admission to the College of Human Medicine or the College of Osteopathic Medicine or graduate program in the College of Nursing R: Open to human medicine students and open to osteopathic medicine students and open to graduate students in the College of Nursing. Approval of department.

Independent study of a specific topic from gross anatomy, histology, radiological anatomy, cytology, neuroscience, or embryology.

#### 685 Directed Study in Clinical Prosection

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P: ANTR 551 R: Open to human medicine students in the College of Human Medicine and open to osteopathic medicine students in the College of Osteopathic Medicine. Approval of department; application required.

Study of anatomical prosection and body-region specific pathologies.

#### 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: ANTR 839

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

#### 885 Vertebrate Neural Systems

Fall of odd years. 3(2-2) Interdepartmental with Neuroscience and Physiology. Administered by Neuroscience. RB: ZOL 402 or NOP 552 or NEU 839 SA: ANTR 885

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

#### 890 Topics in Anatomy and Structural Biology

Fall, Spring, Summer. 1 to 2 credits. A student may earn a maximum of 5 credits in all enrollments for this course. R: Open to graduate students. Approval of department.

Independent study in gross anatomy, histology, virtual microscopy, neuroanatomy, physical anthropology or forensic radiology.