



Anatomy I

ANAT 301

Course Description

This course provides the students with lectures and comprehensive overview of the gross anatomy of the osteomyoarticular system and peripheral nervous system, with consideration of relationships of various anatomical structures. The interpretation of normal medical imaging studies is also highlighted.

Credit: 3 semester credits

Repeatable: No

Competencies: At the end of Anatomy I and II, the student will have had the opportunity to practice the following competencies through meeting the objectives of the course:

Medical Knowledge

- MK1 Demonstrate knowledge of normal and abnormal structure and function of the human body on the macroscopic, microscopic and molecular levels.
- MK2 Identify the pathology and pathophysiology of various diseases and correlate them with clinical signs and symptoms.
- MK3 Demonstrate knowledge of common or significant, acute and chronic clinical problems.
- MK4 Differentiate between normal and abnormal development and age-related changes across the life span.
- MK5 Demonstrate comprehension of clinical interventions and agents including pharmaceutical, surgical, genetic, complementary and alternative medicines, and other therapies.
- MK6 Demonstrate knowledge and ability to interpret epidemiological and public health contributions to understanding health and disease.
- MK7 Demonstrate knowledge of preventive medicine and current guidelines for health promotion and disease screening.

Patient Care

- PC2 Obtain a complete and accurate medical history that covers essential aspects, also addressing issues related to age, gender, culture, use of complementary medicine, family dynamics and socioeconomic status.
- PC3 Perform both complete and symptom-focused physical examinations, including mental status examination.
- PC4 Perform or participate in routine technical procedures. (Procedures determined by core clerkships)

- PC5 Construct a differential diagnosis for common clinical presentations.
- PC6 Identify and interpret the most useful clinical, laboratory, imaging, and pathologic testing for common clinical presentations.
- PC7 Construct appropriate and efficient therapeutic management and prevention strategies for patients with common conditions, both acute and chronic, including medical, psychiatric, and surgical conditions, and those requiring short and long term rehabilitation.

Communication Skills

- CS3 Demonstrate the ability to give a clear, concise, and organized oral presentation and written documentation of a history and physical exam with basic elements of assessment and plan that addresses the psychosocial and biomedical needs of the patient for a focused or complete patient encounter.
- CS4 Conduct an interview with a limited English-speaking patient through appropriate use of an interpreter.
- CS6 Educate patients on preventive strategies and medical risks and benefits in medical decision making.

Systems-Based Learning

- SB1 Demonstrate the ability to work within a multidisciplinary patient care team, with an understanding of the physicians' role as team leader and the importance of ancillary staff.
- SB2 Examine medical errors and quality problems using a health systems approach and describe available methods to minimize them.

Course Structure

The course includes 36 lectures, 9 laboratory sessions, 2 quizzes, one midterm exam and a final exam.

Objectives:

By the end of the course, students should be able to:

- be familiarized with anatomical principles and correlate structure with function
- understand the scientific basis of anatomy
- explain the features related to each structure (form, location, relationships)
- explain the basic structural organization of the vertebrate body plan
- apply the anatomical knowledge on interpretation of symptoms and signs of common diseases
- apply their basic knowledge of anatomical structures to interpret normal medical imaging studies
- communicate information about body structure using language appropriate to professional colleagues and to the lay person
- recognize common abnormalities

- practice dissection and acquire manual skills which are required for simple clinical procedures, and for the routine examination of patients
- identify all the major structures of the human body on dissected bodies, pictures and medical imaging studies
- Pursue independent, self-directed and critical learning.

Schedule: To be posted at the beginning of the term on the online calendar. There will be 2 quizzes, a midterm exam, and a final exam.

Assignments: online Kaplan lectures.

Textbooks and Reference Materials:

Textbook: Essential Clinical Anatomy (Book with Access Code to Website)

Keith L. Moore, Anne M. R. Agur, Arthur F. Dalley, 4th Edition, 2011, Lippincott Williams & Wilkins. ISBN-13: 9780781799157

Complementary readings: Grant's Dissector

Patrick W. Tank, 15th North American Edition, March 30, 2012, Lippincott Williams & Wilkins, ISBN- 10: 1609136063, ISBN-13: 978-1609136062

Atlas of Human Anatomy, Professional Edition

Frank H. Netter, Fifth Edition, May 17, 2010, Saunders, ISBN-10: 437709702, ISBN-13: 978-1437709704

Clinically Oriented Anatomy

Keith L. Moore, Anne M. R. Agur, Arthur F. Dalley, 7th North American Edition, February 13, 2013, Lippincott Williams & Wilkins, ISBN-10: 1451119453, ISBN-13: 978-1451119459

Evaluation: Two quizzes, a midterm and a final exam.

Each quiz will be conducted before the corresponding exam.

The unified exams I and II will be taken on Friday in week # 5, and # 10. Each exam will include the entire topics covered in each block.

The final will be taken during the final week of the term according with the schedule.

Quizzes and exams will be on USMLE (multiple choice) format and will include pictures, X-rays, CT scan and MRI. According to USMLE procedures, the times allocated for completing an exam will be approximately one minute per number of exam questions. Exams will be revised in full after examination.

The value of each question is the same for both the quizzes and exams

The final grade is expressed as the percentage of the right answers to the questions in all the quizzes and exams

Grade:

Percent of Points	Letter Grade
95-100%	A+
90-94%	A
85-89%	B+
80-84%	B
75-79%	C+
70-74%	C
<70%	F

Attendance: in accordance with the Student Handbook.

Policies: The Course Syllabus may be modified at the discretion of the Course director to accommodate the changes that normally take place throughout the semester. Students will be notified each time a change to the Course Syllabus is required. Some topics might be assigned as independent study. Students will be notified when a topic is assigned as independent study

Faculty: Dr. Lina L. Diaz Galan MD, PhD, Professor of Gross Anatomy and Histology

Dr. Iuliia Zhuravlova MD, PhD, Associate professor of Gross Anatomy, Embryology and Early Human Development.