

Degree in Medicine and Surgery

Teaching: **HUMAN ANATOMY I**

SSD: **BIO / 16**Number of CFU: **10**

Teachers:

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PREREQUISITES

Prerequisites are not required. Basic knowledge in Histology, Biology and Genetics are recommended

LEARNING OBJECTIVES

The aim of the course is to provide the student with the knowledge of the essential characteristics, from a cellular and functional point of view (macroscopic and microscopic anatomy) of essential elements of the human body. The locomotor, cardiovascular systems (heart, main vessels), the peripheral nervous system, the oral cavity and the nasal cavity, main anatomical organization of head and neck will be taught. The student will learn information about the anatomy of each system aimed at examining the patient, understanding the clinical symptoms and their evolution during a pathological event. These objectives will be achieved through lectures, practical exercises through the use of anatomical models and interactive software designed to facilitate the understanding and learning of the three-dimensionality of the anatomical structures being studied.

LEARNING OUTCOMES

Knowledge and understanding

At the end of this teaching the student will be able:

- To know the anatomical terminology (sections, localization and movement terms).
- To describe the major topographical and functional subdivisions of the human body and superficial anatomy.
- To know the joints, their dynamics and the features of the several joints present in the locomotor system (skull, vertebrae, thorax, lower limb and upper limb).
- To know the morphology of the various bones and muscles that make up the human skeleton and their connections.
- To know the lymphatic and vascular system (heart and main vessels).
- To know the oral cavity and the structures associated (teeth, tongue, mouth and face muscles, salivary glands).
- To know the nasal cavity.

To know the cranial nerves and the main spinals nerve of upper and lower limb and head

• To know pharynx, larynx.



Applying knowledge and understanding

At the end of the course the student will be able:

- To know the anatomy of the various structures of the human body.
- To know the interactions between the several structures.
- To use the knowledge gained to understand the clinical symptoms and their evolution during a pathological event.

Communication skills

At the end of the course the student must be able:

• To use the specific anatomical terminology properly.

Making judgments

At the end of the course the student must be able:

• to make general assessments of the topics covered.

COURSE SYLLABUS

- <u>Locomotor system</u>: introduction to the systematic study of the locomotor system, discussion of anatomical terminology (sections, localization and movement terms); description of the major topographical and functional subdivisions of the human body and superficial anatomy.
- <u>-Osteology</u>: morphology of the human skeleton (the skull, the axial and appendicular skeleton)
- <u>-Arthrology</u>: general information about the joints, types of movement, dynamics of the joints, study of the joints of the skull, vertebral column, thorax, upper limb and lower limb.
- <u>-Myology</u>: Shape and function of skeletal muscles, vertebral muscles, neck muscles, chest and pelvic wall muscles, upper limb and lower limb muscles.
- <u>Cardiovascular system</u>: General information about the lymphatic and vascular system.
 Pericardium, heart and blood vessels of the chest. Main arteries and veins of the head, neck and limbs.
- <u>Peripheral nervous system</u>: spinal snerves and plexuses of head, neck, upper and lower limb. Cranial nerves. Autonomic nervous system, sympathetic, parasympathetic division. Special sensory receptors and special senses (vision, hearing, taste, and smell)
- Oral cavity: teeth, tongue, mouth and face muscles, salivary glands.
- Nasal cavity and paranasal sinuses.
- Pharynx and larynx.

COURSE STRUCTURE

The course is structured in 100 hours, divided into lessons of 2, 3 or 4 hours according to the academic calendar. Lectures will include theoretical lessons and supplementary seminars on the topics covered. Some hours of practical exercises that will be carried out in the appropriate anatomy laboratory with the help of anatomical models, are also included.



COURSE GRADE DETERMINATION

The assessment of learning takes place on the basis of a written exam followed by an oral exam. The written test will consist of a number not less than 40 questions with multiple choice answers (5 options). To access the oral exam the student must have answered correctly at least 60% of the questions. During the oral exam the student's ability to apply and expound knowledge appropriately will be evaluated. In particular, the exam will be evaluated according to the following criteria:

Failed: important deficiencies and / or inaccuracies in knowledge and understanding of the topics; limited capacity for analysis and synthesis, frequent generalizations.

18-20: knowledge and understanding of the subjects quite sufficient with possible imperfections; ability to analyze, synthesis and sufficient judgment autonomy.

21-23: Knowledge and understanding of routine topics; Correct analysis and synthesis skills with coherent logical argumentation.

24-26: Fair knowledge and understanding of the topics; good analysis and synthesis skills with rigorously expressed arguments.

27-29: Knowledge and understanding of the subjects complete; remarkable analytical skills, synthesis. Good independence of judgment.

30-30L: Excellent level of knowledge and understanding of the topics. Considerable analytical and synthesis skills and autonomy of judgment. Arguments expressed in an original way.

OPTIONAL ACTIVITIES

In addition to the didactic activity the student, during the scheduled reception hours, will have the opportunity to ask the teacher for clarifications on the topics covered.

READING MATERIALS

-BOOK:

Gray's Anatomy (latest edition) Churchill Livingstone, Elsevier. Treatise on Human Anatomy (3 volumes), Anastasi G. Edi Ermes

For Neuronatomy section:

Gray's Clinical Neuroanatomy, by Elliott L. Mancall & David G. Brock Snell's Clinical Neuroanatomy 8th Edition by Ryan Splittgerber Ph.D.

-ATLAS:

Atlas of Human Anatomy, Frank H. Netter (latest edition) Elsevier. Human Anatomy – Atlas Edi Ermes Prometheus-Universita', editore UTET Sobotta, ultima edizione, editore Elsevier-Masson