

# University of Rome Tor Vergata

## Human Anatomy

Prof.ssa Paola Grimaldi

[p.grimaldi@med.uniroma2.it](mailto:p.grimaldi@med.uniroma2.it)

### First Part

**Locomotor Apparatus:** Introduction to the systematic study on the locomotor apparatus. Anatomical terminology: section types, terms of location and terms of movement. **OSTEOLOGY** : Morphology of the human skeleton: the axial skeleton, the exo and endocranium, the skeleton of the appendages. **ARTHROLOGY**: General information on joints, types of movements, joint dynamics. Joints of the skull. Insights on temporomandibular joint: macroscopic and microscopic, morphogenesis and mandibular joint, joint biomechanics and jaw movements. **MYOLOGY** : Shape and action of skeletal muscle; Skeletal muscles of the splanchnocranium, vertebral muscles of the neck and trunk, muscles of the chest, abdomen, muscles of upper and lower limbs. Insights on mimic muscles, muscles of mastication, suprahyoid and infrahyoid muscles.

**Cardiovascular apparatus:** General organization of the vascular and lymphatic system. Pericardium, heart and vessels of the torax and abdomen. Spleen. Main arteries and veins of the head, neck and limbs.

### Second Part

**Splanchnology:** Macroscopic and microscopic structure of teeth, dentition and permanent tooth eruption chronology. International Nomenclature of teeth, distinctive morphological characteristics of individual teeth. dental arches. Macroscopic and microscopic structure of periodontal formations: alveolar bone, periodontal ligament, gingiva and cement. Oral Cavity, teeth, tongue, muscles of the mouth and of the face, salivary glands. All organs listed below will be studied at the macroscopic and microscopic level, including relations with neighbouring structures and organs, their vascularization and innervation. Pharynx and Larynx. Trachea, bronchi, lungs and pleura. The mediastinum. Gastrointestinal tract: esophagus, stomach, small and large intestine, rectum. Liver and pancreas. Urinary tract: kidney, ureter, bladder and uretra. Male and female reproductive system. Endocrine system: Pituitary, thyroid and parathyroid glands, endocrine pancreas, adrenal gland, gonads.

**Neuroanatomy:** Microscopic structures underlying the functioning of the nervous system: sensory receptors ( proprioceptors and esteroceptors), neurons, glia, myelin, synapses. General organization of conscious and unconscious sensitive pathways. Spinal cord. Brain Stem : medulla oblongata, pons, midbrain. Cerebellum. Diencephalon. Telencephalon. Meninges and cerebrospinal fluid system: organization of the meninges in the various regions of the CNS ; descriptive anatomy of the ventricular system, production, circulation and reabsorption of cerebrospinal fluid. Vascularization of the central nervous system. Autonomic nervous system: general organization of the

autonomic nervous system, the parasympathetic and sympathetic divisions. Peripheral nervous system: cranial nerves and spinal nerves. The cranial nerves: origin, course, innervation territories, clinical anatomy.

Textbooks:

Gray's Basic Anatomy . Churchill Livingstone, Elsevier.

ATLAS: Atlas of Human Anatomy, Frank H. Netter (latest edition) Elsevier.

Exam Method:

Oral exam, eventual practical tests.