UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Human Anatomy

2425-1-I0101D001-I0101D004M

Aims

The student will learn and describe the human body organization and the anatomic terminology. To know and describe the organ macro and microscopic anatomy and their relationships.

Contents

The course provides students with the fundamental theoretical knowledge of anatomy, with a view to their subsequent professional application. The course aims to teach the morpho-functional characteristics, organization and macroscopic and microscopic structure of the organs of the different systems/apparatus of the human body

Detailed program

General anatomy - Anatomical terminology; planes, lines and anatomical landmarks; terms of movement; principles of organization of the human body: cells, tissues, organs, systems, systems; serous spaces and connective spaces, their location and content. Locomotor system - Classification of bones, muscles and joints. Joints: description of the different types of synanthrosis and diarthrosis. Skull: neurocranium and splanchnocranium. Description of the bones that make up these two parts. Skull in the newborn. Drinking fountains. Cranial fossae and main foramina with structures passing through them. Cranial sutures. Description of the bones that contribute to the formation of the orbital cavity and nasal cavity. Sinuses. Skull joints. Mimic and masticatory muscles. Vertebral column: characteristics of the different types of vertebrae and regional differences. Spine joints. Spine muscles. Neck: overview and muscles of the neck. Thorax: bone structure of the rib cage (sternum, ribs and thoracic vertebrae) rib joints and costal cartilages; chest muscles, respiratory muscles, especially the diaphragm muscle. Upper limb: shoulder girdle (clavicle and scapula) and free part (humerus, radius ulna). Main characteristics of the various bones. Joints of the upper limb (shoulder girdle and free part). Muscles of the thoracic girdle, shoulder,

rotator cuff, elbow, upper arm and forearm.
Carpus: bones, joints and muscles. Hand: metacarpus and phalanges, with joints and muscles. Pelvic girdle and lower limb: hip; patella, femur, tibia, fibula. Joints and ligaments of the pelvis, coxofemoral, knee, general information on the other joints. Muscles of the hip, thigh and leg. Foot: tarsus, metatarsus and phalanges: description of the bones, joints and muscles. Abdominal wall: anterolateral and posterior abdominal wall muscles; inguinal ligament; inguinal canal. Pelvic floor: pelvic diaphragm; perineum. Mediastinum: definition, limits and contained structures. Cardiovascular system: Heart, Blood vessels. Vessel structure: arteries, veins and capillaries. Pulmonary and systemic circulation. Polygon of Willis. Vasculature of the upper and lower limbs. Lymphatic system: lymph. and lymph vessels. Site, relationships, vascularization, macroscopic and microscopic anatomy of lymphoid organs: thymus, spleen, lymph nodes, tonsils. Respiratory system: nose, nasal and paranasal cavities. Site, relationships, vascularization, macroscopic and microscopic anatomy of the organs of the respiratory tract: pharynx, larynx, trachea, bronchi, bronchioles, lungs. Visceral and parietal pleura. Peritoneum: general organization, ligaments, omentum, months, intra site
or retroperitoneal of the various organs. Digestive system. Mouth. Site, relationships, vascularization, macroscopic and microscopic anatomy of the organs of the digestive tract: esophagus, stomach, small intestine (duodenum, jejunum, ileum), large intestine (cecum, appendix, colon and rectum). Glands attached to the digestive system. Location, relationships, vascularization, macroscopic and microscopic anatomy: liver, gallbladder, pancreas. Urinary system. Site, relationships, vascularization, macroscopic and microscopic anatomy: kidneys, intrarenal urinary tract, ureter, bladder, female and male urethra. Endocrine system. General characteristics of hormones. Site, relationships, vascularization, macroscopic and microscopic anatomy: pituitary gland and its relationship with the hypothalamus, thyroid, parathyroid, adrenal gland, endocrine pancreas, pineal gland. Female genital system. Location, relationships, vascularization, macroscopic and microscopic anatomy of the female genital organs: ovary, uterus, uterine tubes, vagina. External genitalia: morphology, relationships and structure.
General information on the placenta. Male genital system. Site, relationships, vascularization, macroscopic and microscopic anatomy of the male genital organs: testis, epididymis, vas deferens, prostate, seminal vesicles and bulbourethral glands. Structures contained in the spermatic cord. Integumentary system. Skin and skin appendages. Breast: location, relationships, macroscopic and microscopic anatomy. Vasculature of the skin and mammary gland. Central nervous system. Generality. CSF. Spinal cord (organization and internal structure). Brain. Organization and functions of the different portions of the brain: telencephalon, brainstem, medulla, pons, midbrain, diencephalon. Meninges. Brain vascularization. Circle of Willis. Blood brain barrier. Limbic system. Cerebellum (organization and internal structure). Peripheral nervous system. Cranial nerves and spinal nerves. Autonomic nervous system. Eye: orbital cavity and its contents, general notions on the structure of the eyeball and oculomotor muscles. Lacrimal system. Ear: general notions on the structure and components of the external, middle and internal ear

Prerequisites

Scientific knowledge at high school level

Teaching form

16 frontal lessons (each lasting 2 hours) in attendance and via eLearning

Textbook and teaching resource

• Anatomia Umana. F.H. Martini, R.B. Tallitsch, J.L. Nath. EdiSES

• Anatomia Umana. Saladin K.S. Edizione III. Ed. Piccin
• Anatomia Umana. Selley, Vanputtenet , Regan, Russo. Ed GC Sorbona
• Anatomia Umana. McKinley, O'Loughin. Ed Piccin
• Anatomia Umana Funzionale. Vercelli A. et al Ed Minerva

For the texts, the latest edition available.
Teacher will provide other educational material

Semester

First semester

Assessment method

29 multiple choice questions (which include both Histology and Anatomy questions) each with a score of 1 and one open-ended Anatomy question with a score of 4. Duration 1h

Office hours

By appointment upon prior agreement made via e-mail (mariarosaria.miloso@unimib.it)

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY | REDUCED INEQUALITIES