UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Anatomy of The Locomotor System

1920-3-H4102D018-H4102D050M

Aims

To provide the knowledge of the embryonic development, of the gross anatomy and microscopic organization of the locomotor system, and of the aging changes required for a correct physical examination and understanding of the diseases pathogenesis.

Contents

Gross anatomy and organization of the locomotor system. Description of the structure and function of bones, joints, ligaments and skeletal muscles. Analysis of the movements of individual joints and the body as a whole. Basic anatomical knowledge allowing students to take proper history and perform clinical examination of the musculoskeletal system.

Detailed program

During the course the general concepts of the anatomical organization of the locomotor system described during the 2nd term in "Fundamentals of Human Morphology" will be linked to the clinical implications. Gross anatomy of Bones: Skull; Vertebral Column; Sternum and Ribs; Pectoral Girdle and Upper Limb Bones – Clavicle, Scapula, Humerus, Ulna, Radius, Carpals, Metacarpals, Phalanges; Pelvic Girdle and Lower Limb Bones - Coxal Bone, Femur,Patella,Tibia, Fibula, Tarsals, Metatarsals, Phalanges; Aging; Osteoporosis; Factors Affecting Growth/Remodeling - Bone Growth; Factors Affecting Growth/Remodeling - Fractures and Bone Repair. Gross Anatomy of Skeletal Muscles: Muscle Attachment Sites; Muscles of the Head; Muscles of the Neck and Back; Muscles of the Thorax; Muscles of the Abdomen; Muscles of the Pelvis; Muscles of Upper Limb (Axio-Appendicular); Muscles of Upper Limb (Arm); Muscles of Upper Limb (Forearm); Muscles of Upper Limb (Hand); Muscles of Lower Limb (Thigh); Muscles of Lower Limb (Leg); Muscles of Lower Limb (Foot). Joints: Functions of Joints; Joint Structure Classifications; Joint Movement Classifications; Structures of Synovial Joints; Ligaments;

Factors Affecting Range of Motion in Joints; Types of Synovial Joints; Arthritis;Temporomandibular Joint (TMJ); Glenohumeral and Associated Joints; Elbow Joint and Associated Joints; Radiocarpal (Wrist) Joint; Hip Joint; Knee Joint; Ankle (Talocrural) and Associated Joints.

Prerequisites

Basic knowledge of histology and anatomy as gained during the 2 term in "Fundamentals of Human Morphology"

Teaching form

Frontal lectures and clinical case description and analysis.

Textbook and teaching resource

Gray's Anatomy: The Anatomical Basis of Clinical Practice, by S. Standring Gray’s Anatomy for Students, by R. Drake, A.W. Vogl, A.W.M Mitchel Atlas of Human Anatomy, by F. H. Netter Human Anatomy Atlas, by G. Anastasi, E. Gaudio, C. Tacchetti, E. Mtui Junqueira's Basic Histology: Text and Atlas, Fourteenth Edition by Anthony L. Mescher. Wheaters functional histology: a text and colour atlas, Young Barbara

Semester

Assessment method

An oral examination will test students’ knowledge. The examination is intended to test students’ knowledge acquired in the histology, macroscopic anatomy and clinical/functional anatomy.. During the exam anatomical models and diagnostic images might be used to assess students’ knowledge.

Office hours