



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Anatomia 2 B

2122-1-H4101D002-H4101D009M

Aims

The objectives of the course are to provide expertise in normal anatomy, cytology, histology, embryology. Teaching will include reference to topographic, radiologic, and clinical anatomy.

Practical activities using models (also virtual 3D), light microscope observations and clinical case simulations will be used to reach the teaching objectives.

Contents

The primary goal of the course is to provide a good knowledge of the embryonic development and of the gross anatomy of the human body, and of the aging changes required for a correct physical examination and understanding of the diseases pathogenesis.

Detailed program

NERVOUS SYSTEM

General organization of the autonomic nervous system and its main division in two parts, sympathetic and parasympathetic. Afferent and efferent nerve fibers. Preganglionic and postganglionic fibers. Neurotransmitters involved. Autonomic ganglia. Large autonomic plexuses.

Anatomical, physiological and pharmacological differences between sympathetic and parasympathetic divisions. Sympathetic division: sympathetic trunks and ganglia, rami communicantes. Parasympathetic division: cranial and sacral components, cranial nerves involved. Functions of the autonomic nervous system.

The enteric nervous system

Some important autonomic innervation: eye, salivary and lacrimal glands, urinary bladder, gastrointestinal tract, heart, medulla of suprarenal gland, genital organs, skin.



Lectures will be partnered by multi approach interactive laboratories, to allow students a closer study of the examined topics. In particular, students will use both different anatomy models (Upper and Lower limbs; Eye and Ear; Skull and Brain), and multimedia sources such as 3D virtual models, to recognize the main features of each organ. In addition, some laboratories will be focused on quizzes based on lectures' topics, and/or on basic clinical cases, later discussed with the teacher.

Prerequisites

See Anatomia Istologia Umana

Teaching form

Frontal lessons and practical sections.

Lessons in attendance, subject to any ministerial changes following the COVID pandemic situation

Textbook and teaching resource

-G. Anastasi e altri autori. Trattato di Anatomia Umana (3 volumi). Edi-Ermes (ed), 2009.

-"Prometheus" testo-atlante di Anatomia, II edizione, 3 volumi

-S. Standring. Anatomia del Gray – Le basi anatomiche per la pratica clinica – 41° ed. EDRA

- - H. Ellis/V. Mahadevan. Anatomia clinica (Italian edition F. Cappello). Idelson-Gnocchi 2019

More on the central nervous system:

Vercelli A. Boido M. Neuroanatomia funzionale - Idelson-Gnocchi (2019)

L. Heimer. The Human Brain and Spinal Cord –Functional neuroanatomy and dissection guide. Springer-Verlag (ed), 1995.

Dockery P, Gruener G, Mtui E - Fitzgerald. Neuroanatomia con riferimenti funzionali e clinici- Edra

-“Barr: Il Sistema Nervoso dell’Uomo. Basi di Neuroanatomia” di Kiernan JA e Rajakumar N. II edizione. Edises (2015)

Haines DE. Neuroanatomia nel contesto clinico. Strutture, sezioni, sistemi e sindromi. Atlante. Edi-Ermes

Atlas;

- Netter. Atlante di anatomia umana, Frank H. Netter, Editore: Edra

- Anatomia umana. Atlante. Curatori: G. Anastasi, C. Tacchetti, Editore: Edi. Ermes

Semester

annual

Assessment method

A mid-course assessment is scheduled for the end of the first semester, by a multiple choice quiz focused on Cytology, Histology, Embriology, head and neck and thoracic region anatomy (nervous system and vascular system excluded) and musculoskeletal system.

At the end of the Course an oral examination is employed to test students' knowledge and it will follow a practical demonstration at the light microscope of the capacity of the student to recognize the normal microscopic features of human organs.

During the exam anatomical models and diagnostic images might be used to assess students' knowledge.

Exams in attendance, subject to any ministerial changes following the COVID pandemic situation

Office hours

See Anatomia Istologia Umana

