UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Microscopic Anatomy

2627-1-H4104D007-H4104D00703

Aims

The learner will be proficient in characterizing the normative microscopic morphology of primary human organs, identifying the precise topography of constituent tissues and their definitive structural-functional properties.

Comprehensive analysis will be devoted to the histological configuration of the digestive, respiratory, urinary, genital, lymphatic, nervous, endocrine, and integumentary apparatuses, serving as an essential precursor to histopathological assessment.

Contents

Students will be introduced to the use of the optical microscope to carry out a microscopic examination of non-pathological organs, with in-depth analysis of the microscopic characteristics of the main human organs

Detailed program

Microscopic examination of the following organs/or systems

Lymphatic system (structure of lymph nodes, spleen, thymus, tonsils, lymphoid tissue associated with mucous membranes)
Respiratory system (respiratory and olphactory epithelia, larynx, trachea, main bronchi and their ramifications, architecture and structure of the lungs. Structure of the intrapulmonary bronchi, pulmonary acinus, alveolar epithelium)
Digestive tract and organs associated with the digestive tract (lip, tongue, salivary glands, pharynx, esophagus, stomach, small intestine, large intestine. Liver and pancreas)

Urinary system (structure of the kidney, nephron, juxtaglomerular system, collecting duct. Urinary tract: bladder, urethra)
Female reproductive system (ovaries, uterine tubes, uterus, ovarian cycle and uterine cycle, placenta, mammary glands)
Male reproductive system (testis and spermatic tract with description of the seminiferous tubes, epididymis, vas deferens and accessory glands: the seminal vesicles and the prostate)
Endocrine system (endocrine glands: thyroid, parathyroid, pituitary, adrenal glands, pancreatic islet structure)
Central and peripheral nervous systems (nervous tissue, DRG, nerves, cerebellum, cortex, spinal cord)
Integumentary system and appendage (skin, hair, sweat glands)

Prerequisites

For an adequate understanding of the teaching materials, we point out how prerequisite: notions of cell biology, physics, chemistry, histology and human embryology.

Teaching form

Theoretical lessons (power point slides) and recognition of histological preparations slides through practical lessons in the Anatomy Laboratory.

The teaching activities will be carried out in person in the Microscopic Anatomy classroom of University of Milano-Bicocca, U8/Asclepio building, via Cadore 48, Monza:

- 4 laboratory activities of 4 hours each carried out in frontal mode
- 5 laboratory activities of 4 hours each carried out in practice mode

The language of delivery of the course will be **English**
During the course, teacher-student discussions are used for clarification and in-depth analysis of the topics covered

Textbook and teaching resource

Junqueira's Basic Histology: Text and Atlas, Fourteenth Edition by Anthony L. Mescher

Wheaters functional histology: a text and colour atlas, Young Barbara

Semester

2nd term

Assessment method

Knowledge of the topics of this module will be assessed through a **preliminary test with multiple choice** and a subsequent **oral test**, in which students will have to be able to recognize and describe a histological preparation chosen from those shown during the lessons.

Knowledge will be assessed through the investigation of theoretical and practical skills on the microscopic and functional characteristics of the organs of the human body and the relationships existing between them. These skills will be acquired thanks to attendance of lessons, individual study and verification during microscopic anatomy practice. Furthermore, during the test, communication skills will be examined in order to be able to describe microscopic anatomy specimens clearly and with appropriate scientific language. Finally, the ability to use the teaching material provided for a critical study and with the ability to implement it independently on the part of the student is required.
For details see the General Syllabus of "Fundamentals of Human Morphology".

Office hours

Every day after agreeing an appointment with the teacher of the course by email

Sustainable Development Goals

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