UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Anatomy of The Endocrine System and Urinary Tract

2627-4-H4102D029-H4102D182M

Aims

Overall aims:

1. To provide a solid and detailed anatomical knowledge of the urinary and male reproductive system, in order to deliver advanced concepts as a foundation for clinical practice.
2. To provide a solid and detailed anatomical knowledge of the endocrine system, in order to deliver advanced concepts as a foundation for clinical practice.

Dublin descriptors for the learning outcomes:

1. Knowledge and understanding: Deepening the knowledge of the urinary, male reproductive, and endocrine systems, as well as the anatomy of the central and peripheral nervous systems with a clinically oriented approach, serving as a foundation for clinical practice.
2. Applying knowledge and understanding: Leveraging the knowledge described in point (1), students will refine their ability to interpret clinical and diagnostic findings (e.g., diagnostic imaging), understanding whether the observed characteristics are normal or pathological.
3. Making judgements: Students will learn to make sound clinical decisions based on the application of clinically relevant anatomical concepts.
4. Communication skills: Enhancing the ability to discuss clinically relevant anatomical concepts within this vertical track with colleagues, patients, and caregivers.
5. Learning skills: Deepening the ability to interpret diagnostic results during clinical evaluation and during the assessment of radiological/diagnostic examinations (e.g., ultrasound).

Contents

Accurate and in-depth description of the urinary system, the male reproductive system, and the endocrine system.

Detailed program

URINARY SYSTEM
Location, relationships, and morphological characteristics of the organs of the urinary tract: kidney and renal fascia, renal pelvis, minor and major calyces, ureter, bladder, female urethra, male urethra with the main aspects of its three parts (prostatic, membranous, and penile). Vascularization and innervation of all organs of the urinary system.

ENDOCRINE SYSTEM
General characteristics of hormones. Location, relationships, and morphological characteristics of the endocrine organs: pituitary gland and its connection with the hypothalamus, thyroid, parathyroids, adrenal gland, endocrine pancreas, pineal gland. Gastroenteropancreatic (GEP) system.
Vascularization and innervation of all organs of the endocrine system.

MALE REPRODUCTIVE SYSTEM
Location, relationships, and morphological characteristics of the male genital organs: testis, epididymis, ductus deferens (vas deferens), prostate, seminal vesicles, and bulbourethral glands. Fascial coverings of the scrotum and spermatic cord. External genitalia: morphology and structure. Vascularization and innervation of all organs of the male reproductive system.

Prerequisites

Knowledge acquired in the 1st year course Fundamentals of Human Morphology

Teaching form

Didactic activities (lessons) rely on different teaching methods: the entire course is divided into 2 in person lessons in the Anatomy Room, u8/Asclepio building in Monza. Each lesson is divided into a part of a delivery nature: the teacher presents the contents using the virtual dissection table present in the Anatomy Room (Anatomage Table) to allow students to visualise the structures presented in 3D. In the second part of the lesson, the teaching is interactive: the class is divided into small groups of no more than 6-8 students, also relying on flipped classroom type activities. The students carry out exercises to consolidate the information presented in the first part of the lesson using the 3D models available in the classroom, paper and/or online teaching materials made available by the teacher and using Anatomage Table for virtual dissections personally. Gamification strategy is also part of the interactive activities: a small team tournament among the different groups is performed using the quiz mode of Anatomage Table

Textbook and teaching resource

Treatise on Human Anatomy (Systemic Approach), Topographic Approach, Atlas - G. Anastasi G. et al.; E. Mtui (editor).
Gray's Anatomy: The Anatomical Basis of Clinical Practice, by S. Standring.
Atlas of Human Anatomy, by F. H. Netter.
Human Anatomy Atlas, by G. Anastasi, E. Gaudio, C. Tacchetti, E. Mtui.

Semester

Second term, fouth year.

Assessment method

Three multiple choice questions (1 correct answer out of 4 choices). Every correct answer equals 1 point, not given/wrong answer equals 0 point. This assessment will be part of the assessment of the whole vertical track.

Office hours

Upon appointment emailing the teaching staff.

Sustainable Development Goals

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