UNIVERSITÀ DEGLI STUDI DELL'AQUILA

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[D0287] - HISTOLOGY

Module of [DM0174] - HYSTOLOGY AND EMBRIOLOGY

General information

Course	MEDICINE AND SURGERY
Course type	Master or equivalent second cycle
Academic year	2026/2027
Year	1
Training activity type	Basic compulsory subjects
Scope	B_03. Morfologia umana
Language	Italian
CFU	5 CFU
Didactic Activity Type	Lecture
Evaluation	FINAL GRADE
Teaching period	Second Semester (from 01/03/2027 to 10/06/2027)
Holders	RUCCI NADIA - Main teacher
Teachers	MAURIZI ANTONIO
Length	62.5 hours (62.5 hours Lecture)
Subject area	BIOS-13/A
Location	L'Aquila - Università degli Studi
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Module's Language

Italian

Module's Goals

The main objectives of the course are: To provide knowledge about the morphological and functional characteristics of the human tissues; - To provide knowledge about the cell organisation at structural and ultrastructural level as well as the interactions between the cells inside a human tissue; To provide knowledge about the functional interactions among the human tissues; To convey the knowledge about human cell biology and histology, which are preparatory for the subsequent studies and for the physician education.

Module's Learning outcomes

On successful completion of this teaching activity, the student should have acquired: A proper scientific terminology; The main methods employed for the analysis of human histological samples; A proper knowledge about the cell structure and human tissue organisation; The ability to identify and describe in a proper manner the different human tissues and the related pathological aspects.

Module's Required skills

This course requires basic knowledge related to cell biology and biochemistry.

Module's Subjects

The main topics of the human histology teaching activity include: **0.25 CFU:** Topics of cytology useful for the histology study: the cytoskeleton, cell junctions, the stem cells; Methods for the study of cells and human tissues: preparation and staining of histological samples, immunohistochemistry, immunofluorescence; optical, electronic and confocal microscopy. **0.75 CFU:** Epithelial tissues: covering epithelia (endothelium, gastric and intestinal epitelium, epidermis), exocrine (goblet cells, gastric glands, Lieberkühn crypts, sweat glands, mammary gland, exocrine pancreas, liver) and endocrine (hypothalamus, pituitary gland, pineal gland, thyroid, parathyroid glands, endocrine pancreas, adrenal glands, diffused endocrine system) glands; **2.5 CFU:** Connective tissues and specialized connective tissues (adipose tissue, cartilage, bone tissue, blood, bone marrow and hematopoiesis, primary and secondary lymphoid organs; **0.5 CFU:** Muscle tissue: skeletal, cardiac, and smooth muscle;Nervous tissue: neuron, glia, nerve fiber, synapses and nerve structure. **1 CFU:** Histology training, virtual visualization and/or by optical microscopy of histological sections for the following human tissues: covering epithelium (simple and stratified, transitional, pseudostratified), glands (liver, thyroid, adrenal glands, pituitary gland, mammary gland, pancreas), connective tissue (tendon and derma), special connective tissues (hyaline, elastic and fibrous cartilage, bone tissue, adipose tissue, blood smear, bone marrow, spleen thymus, lymph node), muscle tissue, nervous tissue.

Module's Teaching methods

Face to face lectures with slides; Virtual imaging of histological sections. Learning methods can be adapted based on any indication from the University disability commission.

Module's Verification of learning

Oral examination. Two questions will be asked, aimed to understand: 1) the level of knowledge of the candidate concerning the topics covered; 2) the student's ability to describe the topics with appropriate scientific terminology. The assignment of the mark will reflect the following levels of preparation: Not sufficient (<18/30): fragmented and superficial knowledge of the contents, inadequate exposition skills. - Sufficient (18/30 – 20/30): sufficient but general knowledge of the contents, simple exposition, limited autonomy of critical analysis. Adequate (21/30 – 24/30): appropriate but not in-depth knowledge of the contents, acceptable terminology, partial autonomy of critical analysis. Good (25/30-27/30): appropriate and broad knowledge of contents, good ability to apply knowledge, appropriate language skills and good autonomy of critical analysis. Great (28/30-30/30): Wide, complete and in-depth knowledge of the contents, excellent ability of analysis and synthesis, confident and correct presentation. - Excellent (30/30 cum laude): Very broad, complete and in-depth knowledge of the contents, well-established ability to apply the contents, excellent capacity for synthesis and interdisciplinary connections, mastery of exposition. At the discretion of the Examination Committee, especially for examination sessions with a high number of registered students (i.e., more than 70), candidates may be required to take a preliminary multiple-choice test.

The learning assessment can be adjusted on the basis of any indication from the University Disability Commission. Since this module is part of an integrated course, it would be possible to perform partial evaluation, however the final evaluation will be the result of the weighted average among the modules (i.e. CFU).

Module's Books

Recommended textbook: Istologia, Monesi 8th edition (Piccin editore); Textbooks to consult: - Molecular Biology of the Cell, Alberts B (Zanichelli editor) -Histology M.H. Ross (Casa Editrice Ambrosiana); - Histology and Microsocpic anatomy, Wheater (Elsevier Masson). Websites supporting the study: http://www.istologia.unige.it/ http://www.atlanteistologia.unito.it/page.asp http://www.getbodysmart.com/ap/histology/menu/menu.html http://www.pathguy.com/histo/000.htm http://www.anatomyatlases.org/MicroscopicAnatomy/MicroscopicAnatomy.shtml https://histo.life.illinois.edu/histo/atlas/slides.php.

Module's Extra info

Reception: by appointment via mail at the following address: nadia.rucci@univaq.it building Angelo Camillo De Meis (Coppito 2), 1st floor, room B-2-36; virtual meetings are also possible, via teams platform.