UNIVERSITÀ DEGLI STUDI DELL'AQUILA

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[D0420] - HISTOLOGY

Module of [DB0197] - MORPHOFUNCTIONAL SCIENCES

General information

Course	BIOMEDICAL LABORATORY TECHNIQUES
Course type	Bachelor or equivalent first cycle
Academic year	2026/2027
Year	1
Training activity type	Basic compulsory subjects
Scope	Biomedicine
Language	Italian
CFU	2 CFU
Didactic Activity Type	Lecture
Evaluation	FINAL GRADE
Teaching period	Second Semester (from 01/03/2027 to 11/05/2027)
Holders	RUCCI NADIA - Main teacher
Length	20 hours (20 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 goals of this course are: To provide knowledge on 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 among the cells inside a tissue; To provide knowledge about the functional interactions among the tissues; To convey the knowledge about cell biology and histology, which are preparatory for the subsequent studies. This teaching is also in line with the educational objectives of the course. In fact, it will contribute to provide students with the necessary basic knowledge: 1) for the management of the biological sample to be analysed, 2) for the planning and use of appropriate methods and technologies in compliance with quality requirements, 3) for the critical evaluation and reliability of test and analysis of the results.

Module's Learning outcomes

On successful completion of this course, the student should have acquired: a proper scientific terminology; the main techniques employed for the preparation of histological samples; a proper knowledge about the cell structure and tissue organisation; the ability to describe the different tissues linking them to their physiological role.

Module's Required skills

This course requires basic knowledge of cell biology.

Module's Subjects

The main topics of the Histology course include: 0.25 CFU: topics of cytology useful for the histology study: cell membranes, vesicular trafficking, cell secretion, lysosomes, cytoskeleton and cell junctions. - 1.5 CFU: definition of parenchymatous and hollow organs; epithelial tissues and functional classification; classification of the lining epithelium, description of the endothelium, intestinal epithelium and epidermis; exocrine glands: classification, description of the goblet cells, intestinal and gastric glands, sweat glands; connective tissues and specialized connective tissues; brief description of the cartilage and bone tissues; the blood; bone marrow and hematopoiesis; lymphoid organs; the concept of immunity; brief description of the muscle tissue; the neuron. - 0.25 CFU: methods to study cells and tissues: preparation, staining and immunostaining (immunohistochemistry/immunofluorescence) of histological sections; analysis of histological sections, preparation of a blood smear.

Module's Teaching methods

Face to face lectures with slides; analysis of histological sections. Learning methods can be adapted according to any indication of the disability Commission of the University.

Module's Verification of learning

Oral examination; two questions will be asked, aimed to understand the level of knowledge of the student related to the topics and his/her ability to describe the topics with appropriate scientific terminology. In the case of foreign students, the exam may be taken in English upon the student’s request. The assignment of the mark will consider the following levels of preparation: not sufficient (<18/30): fragmented and superficial knowledge of the topics, inadequate skills exposition; sufficient (18/30 – 20/30): sufficient but general knowledge of the topics, simple exposition, limited autonomy of critical analysis; adequate (21/30 – 24/30): appropriate but not in-depth knowledge of the topics, acceptable terminology, partial autonomy of critical analysis. - good (25/30-27/30): appropriate and broad knowledge of topics, 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 topics, well established ability of analysis and synthesis, confident and correct presentation; excellent (30/30 cum laude): very wide complete and in-depth knowledge of the topics, well-established ability to apply the topics, excellent capacity of synthesis and interdisciplinary connections, mastery of exposition. The learning assessment can be adjusted according to any indication of the Disability Commission. Since this course is part of an integrated course, the final evaluation will be the result of the average between the marks of both modules.

Module's Books

Recommended textbooks: - Istologia per le lauree triennali e magistrali (SORBONA 2025); - Adamo et al., “Elementi di ISTOLOGIA e cenni di Embriologia” (PICCIN). 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.

2030 Agenda Goals for Sustainable Development Module's

This teaching activity contributes to the achievement of the Sustainable Development Goals of the UN 2030 Agenda



Module's Extra info

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