

Degree programme	Type	Course
Medicine	FB	1

Contact lecturer

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Teaching staff

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Group languages

You can consult this information at the [end](#) of the document.

Prerequisites

Although there are no prerequisites for enrollment, it is advisable that the student has basic knowledge and competences in the subjects of *Cellular Biology*, *Biochemistry* and *Molecular Biology*.

Objectives

The course of Histology is programmed in the second semester of the first year of the Degree in Medicine and develops the knowledge of the general characteristics of the basic human tissues structures in the organism. The acquisition of competences of the subject will allow the student to obtain a general basis to face the study of the histology of the diverse systems of the human organism during the second course.

The general training objectives of this subject are:

- Differentiate the types of tissues due to their histological and functional characteristics.
- Identify the different cell types that make up each tissue and describe their most important characteristics.
- Use textbooks, atlases and internet resources specific to the study of the subject.
- Develop with ability in the management of the optical microscope and the study of histological preparations.

Learning outcomes

1. Describe the general organisation and function of the systems of the human body in health.
2. Identify the scientific bases of human histology.

3. Identify the main techniques used in histology laboratories.
4. Make correct use of the international anatomical and histological nomenclature.
5. Apply morphofunctional knowledge to the production of structures review texts.
6. Make correct use of histological information sources, including textbooks, atlas images, internet resources and other specific bibliographic databases.
7. Formulate hypotheses and compile and critically assess information for problem-solving, using the scientific method.
8. Communicate clearly, orally and in writing, with other professionals and the media.
9. Describe the cellular organisation of the different body tissues.
10. Identify the tissues and cell types that make up the different body systems in health.
11. Distinguish the basic differences between tissue types from their histological and functional characteristics.
12. Identify the cell types that make up each tissue and describe their most important differential characteristics.

Contents

INTRODUCTION TO HISTOLOGY

- Concept of tissue
- Classification of the basic tissues
- Histological processing and techniques

EPITHELIAL TISSUES

- Revestment epithelia
- Glandular epithelia. Exocrine and endocrine glands

CONNECTIVE TISSUE

- Classification of connective tissues
- Conjunctive tissue
- Adipose tissue

- Blood tissue

- Cartilaginous tissue

- Bone tissue

MUSCULAR TISSUE

- Classification of the muscular tissues

- Smooth muscle tissue

- Striated muscle tissue: skeletal and cardiac

NERVOUS TISSUE

- Neural cells

- Glial cells

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
SELF-STUDY	38	1.52	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
THEORY (TH)	16	0.64	1, 2, 3, 4, 6, 7, 9, 10, 11, 12
TUTORIALS	1	0.04	1, 2, 3, 4, 6, 7, 9, 10, 11, 12
LABORATORY PRACTICES	10	0.4	3, 4, 6, 9, 10, 11, 12

Theoretical classes:

Systematic presentation of the course syllabus, highlighting key concepts. Students acquire the fundamental scientific knowledge of the subject by attending theory classes, which they complement with independent study of the material presented.

Practical classes in the microscopy laboratory:

Practical sessions focused on observing histological specimens prepared using various techniques. Group work and active self-directed learning are encouraged.

Case studies and practical exercises:

Work on cases or problems relevant to the course's learning objectives. Knowledge gained from theory classes, practical sessions, and independent study is applied to solving practical cases presented via Moodle.

Study and preparation regarding learning objectives:

Individual and group work aimed at achieving the learning objectives.

In addition, students may request individual or group tutorials, which will be scheduled based on the availability of the professor responsible for the theory classes.

For this course, the use of Artificial Intelligence (AI) technologies is permitted exclusively for support tasks, such as bibliographic or information searches, and text correction or translations. The student must clearly identify which parts have been generated with this technology, specify the tools used, and include a critical reflection on how these have influenced the process and the final result of the activity. Lack of transparency in the use of AI in this assessed activity will be considered academic dishonesty and may result in partial or total penalties in the activity grade, or more severe sanctions in serious cases

Annotation: within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
Written evaluation: objective tests	50	2	0.08	1, 2, 3, 4, 7, 9, 10, 11, 12
Microscopy evaluation: objective test	20	0.5	0.02	3, 4, 9, 10, 11, 12
Self learning (quizzes on Moodle)	10	5	0.2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Lab practice evaluations	20	2.5	0.1	3, 4, 9, 10, 11, 12

The competencies for this course will be assessed through:

- Continuous evaluation of individual and group exercises (Moodle quizzes), as well as written and microscopy tests at the end of each practical session
- Individual objective tests, which will include the assessment of theoretical knowledge and image identification (written objective tests) and practical skills (microscopy test)

The assessment system is organized into three sections, each evaluated independently and assigned a specific weight in the final course grade:

1) Continuous evaluation tests (30% of the overall grade): This section assesses students' theoretical and practical knowledge throughout the course via virtual exercises on the Moodle and/or Teams platforms, as well as exercises completed at the end of each practical session. To pass this section, the student must obtain a score of 5 or higher on both the Moodle component and the practical assessment. Failure to meet this requirement will result in this section being considered failed.

2) Written exam: Theoretical knowledge and histological image recognition (50% of the overall grade): This

section individually assesses the theoretical knowledge acquired by each student (see course syllabus) using multiple-choice style tests. The exercises consist of true/false questions and case studies related to the course content. The recognition and identification of histological images are also assessed via multiple-choice questions regarding the content of the images.

This exam will consist of three subsections:

- Basic knowledge section: True/False questions (30% of the written exam grade)
- Case studies section: resolution of clinical cases (40% of the written exam grade)
- Image recognition section (30% of the written exam grade)

Students who do not achieve a score of 5 or higher in either the theoretical knowledge block (True/False + Case studies) or the image recognition block of the written exam-as these are separate thematic blocks with distinct specific competencies-will be required to retake the entire exam, including all its parts. No grades obtained in the individual subsections will be carried over.

3) Microscopy exam (20% of the overall grade): This component individually assesses the practical skills acquired by each student via a microscopy exam (see the course syllabus). The exercise requires the correct use of a light microscope to identify human body tissues.

The written exam and the microscopy exam are separate individual assessments held on different days. Students must pass both exams (achieving a score of 5 or higher) to pass the course. Students who score below 5 (out of 10) on either exam must take a retake exam for the failed component.

The continuous assessment component cannot be retaken; therefore, students who score below 5 in this section can only achieve a maximum final grade of 7 (as they will have lost the 3 points allocated to continuous assessment).

Passing the course

To pass the course, students must obtain a minimum average score of 5 out of 10 across the assessment tasks described above, while meeting the previously specified requirements.

In accordance with UAB regulations, to be eligible for the retake assessment, students must have previously been assessed on a set of activities accounting for at least two-thirds of the total course grade. Consequently, students will receive a grade of "Not Assessed" if the completed assessment activities represent less than 67% of the final grade.

Single assessment:

This course does not offer a single assessment option.

Students who do not complete the theoretical and practical assessment tasks will be classified as "Not Assessed" and will exhaust their enrollment rights for the course.

Claims regarding procedural errors on the answer sheets for the various assessment tasks will not be accepted.

Bibliography

The following text books are taken as reference for the follow-up of the subject:

- HISTOLOGY AND CELL BIOLOGY: An Introduction to Pathology. Kierszenbaum and Thiele. Editorial Elsevier Saunders, 2020, 5th edition.

- ROSS. HISTOLOGY: TEXT AND ATLAS. Pawlina. ED. WOLTERS KLUWER HEALTH 2020, 8th Edition.
- HISTOLOGIA. Geneser Editorial Panamericana Medical, 2015, 4th Edition

Note: These textbooks will be useful for the subject of histology taught in the second year and constitute an introduction to the pathological anatomy taught in the third year.

Software

No software is required

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift
(PLAB) Practical laboratories	1	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	2	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	3	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	4	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	5	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	6	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	7	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	8	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	9	Catalan/Spanish	second semester	afternoon
(PLAB) Practical laboratories	10	Catalan/Spanish	second semester	afternoon
(PLAB) Practical laboratories	11	Catalan/Spanish	second semester	afternoon
(PLAB) Practical laboratories	12	Catalan/Spanish	second semester	afternoon
(PLAB)	13	Catalan/Spanish	second	afternoon

Practical laboratories			semester	
(PLAB) Practical laboratories	14	Catalan/Spanish	second semester	afternoon
(PLAB) Practical laboratories	15	Catalan/Spanish	second semester	afternoon
(PLAB) Practical laboratories	16	Catalan/Spanish	second semester	afternoon
(PLAB) Practical laboratories	17	Catalan/Spanish	second semester	afternoon
(PLAB) Practical laboratories	18	Catalan/Spanish	second semester	afternoon
(PLAB) Practical laboratories	19	Catalan/Spanish	second semester	morning-mixed
(PLAB) Practical laboratories	20	Catalan/Spanish	second semester	morning-mixed
(TE) Theory	101	Catalan/Spanish	second semester	afternoon
(TE) Theory	102	Catalan/Spanish	second semester	afternoon
(TE) Theory	103	Catalan/Spanish	second semester	morning-mixed
(TE) Theory	104	Catalan/Spanish	second semester	morning-mixed