




DISCIPLINE SHEET

1.-Info about the program

FOUNDATION FOR DEVELOPMENT AND MANAGEMENT	
1.2-Faculty	FACULTY OF MEDICINE
1.3-Departament	Preclinical/Fundamental Disciplines
1.4-Study domain	Health
1.5-Study cycle	Bachelor
1.6-Study program/ Calification	Medicine-English



2.-Info about discipline

2.1- Name of the discipline		HISTOLOGY_I						
2.2-Course lecturer		Lect. Dr. PLĂMĂDEALĂ Petru , MD, PhD						
2.3-Seminary lecturer		Univ. Teaching Assistant CRACIUN Gabriela-Giorgiana , PhD(c), MD Univ. Teaching Assistant BURLEC Dora , PhD(c), MD						
2.4-Year of study	II	2.5 Semester	I	2.6 Evaluation type	Exam	2.7. Discipline regime	Content	DF
							Mandatory	DOB

3. -Total time (hours of didactic activity per semester)

3.1-Number of hours per week	4	3.2 -course	2	3.3- laboratory	2
3.4-Total hours of the curriculum	56	3.5 -course	28	3.6 -laboratory	28
Distribution of time					Hours
Study after manual, course support, bibliography and notes					10
Additional documentatin in the library, on the specialized electronic platforms and on the field					4
Training seminars/laboratories/projects, themes, papers,portofolios and essays					2
Tutoring					1
Examination					2
Other activities					-
3.7-Individual study hours	19				
3.8-Total hours per semester	75				
3.9-Credit number	3				

4.-Preconditions (if applicable)



4.1.-Curriculum	Cellular biology, anatomy and embriology
4.2.-Learning Outcomes	

5.-Conditions (where applicable)

5.1. -Course Conduct	Amphitheatre
5.2.-conducting the seminar/laboratory	In the wards, near the patient's bed

6. Learning outcomes

Knowledge	Identifies, describes and explains fundamental notions regarding the characteristics of the healthy human body, structural (anatomical, histological, cellular and molecular) and functional (physiological, biochemical, biophysical), as well as the principles of methods for investigating biological functions.
Skills	Correctly interpret and apply fundamental notions regarding the structure and functions of the human body and methods for investigating biological functions
Responsibilities and autonomy	Integrates fundamental notions and methods of investigating biological functions, formulates and assumes reasoned conclusions regarding the state of health or disease.

7.-Objectives of the discipline (resulting from the grid of specific skills accumulated)

7.1 -General objective of the discipline	Acquire histology knowledge in order to use it to pass compulsory histology exams and use knowledge from scale in future clinical practice.
7.2- Specific objectives	Examination of microscopic preparations. Morphological, histochemical, immunohistochemical stains. Recognition of the normal structure of cells and tissues. Fundamental types of tissues. Histology of devices and systems. Knowledge of the criteria for diagnosing organs and the pathological implications of normal structures.



8.-Contents

8. 1-Course (homework, number of hours, bibliography)	hours / week	Teaching methods
1.-Histochemical, cytological and immunohistochemical methods. Electron microscopy. The general organization of the cell.	2	Active and Interactive Video Projection
2.-Tissues and general recognition criteria. Definition and histogenesis of epithelial tissues. General characteristics and classification of epithelium.	2	Active and Interactive Video Projection
3.-Classification of covering epithelia. Morphofunctional correlations in epithelial coverage. Basal membrane: morphology and functions.	2	Active and Interactive Video Projection
4.-Junctions between epithelial cells. Differences in membranes of epithelial cells.	2	Active and Interactive Video Projection
5.-General characteristics of glandular epithelium. Classification of exocrine glands. Types of exocrine glandular cells. Forms of organization of the epithelium of the endocrine glands. Regeneration of epithelium.	2	Active and Interactive Video Projection
6.-Morphological peculiarities of secretory epithelial cells. General biology of epithelia. Epithelia and immunity: humoral and cellular immunity. Transition from normal epithelium to malignant tumors	2	Active and Interactive Video Projection
7.-Connective tissues: definition, general characteristics, classification and histogenesis. Stem cell.	2	Active and Interactive Video Projection
8.-Fixed cells of connective tissue: mesenchymal, reticular, fibroblasts, fibrocytes, myofibroblasts, mast cells, adipocytes, pericytes.	2	Active and Interactive Video Projection
9.-Mobile cells of connective tissue: macrophages, lymphocytes, plasmocytes, monocytes, neutrophil granulocytes and eosinophils. The fundamental substance.	2	Active and Interactive Video Projection
10.-Connective tissue fibers: collagen, reticulin, elastic and oxytalanic fibers. Fibrilogenesis. Types of connective tissue. Mesenchymal tissue. Lax connective tissue. Dense, orderly and disordered connective tissues.	2	Active and Interactive Video Projection
11.-Seromembranous tissue (serous membranes). Reticular connective tissue.	2	Active and Interactive Video Projection
12.-Mucous connective tissue. Implications of connective tissue in degenerative and allergic diseases.	2	Active and Interactive Video Projection
13.-Cartilaginous tissues. Definition, general characteristics and histogenesis. Hyaline, elastic and fibrous cartilage. Cartilage tissue cells.	2	Active and Interactive Video Projection



14.-Cartilage tissue matrix. Cartilage growth. Cartilaginous nutrition and cartilaginous ducts. Cartilage repair, calcification and replacement with bone tissue.	2	Active and Interactive Video Projection
<p>Mandatory bibliography:</p> <ol style="list-style-type: none"> 1.-Histology for Pathologists by Stacey E. Mills, 2016 2.-Basic histology – Junqueira LC, Carneiro J, Lange Med Publ, 2013. 3.-Junqueira's Basic Histology: Text and Atlas (14 thed.) - Mescher, A.L. New York, NY: McGraw-Hill Medical, 2016. 4.-Histology and Cell Biology: An Introduction to Pathology – Kierszenbaum, A.L., & Tres, L.L (Fourth Edition). Philadelphia, PA: Saunders Elsevier, 2015. 5.-Netter's Essential Histology (Second Time)—Ovalle, W.K., & Nahirney, P.C., Philadelphia, PA: Saunders Elsevier, 2013. <p>Optional bibliography:</p> <ol style="list-style-type: none"> 1.-Histology - Atlas & Text Ed. VII-a. - Ross & Pawlina, Lippincott Williams and Wilkins, 2015. 2.-Handbook of Histology, 4th Edition - Gartner P.L., Elsevier, 2017. 3.-Mescher, Antony L. Treatise and Atlas of Histology, Bucharest: Med. Callisto, 2016 4.-Histology - Atlas & Text Ed. VII-a. - Ross & Pawlina, Lippincott Williams and Wilkins, 2015. 5.-Handbook of Histology, 4th Edition - Gartner P.L., Elsevier, 2017. 		
8. 2- Seminar (themes, number of hours, bibliography	hours /week	Teaching methods
1.-Introduction to virtual microscopy. Create a student account. The microscopic technique.	2	<p>Verification of students' theoretical knowledge of the current work, proof by the student of knowledge of the dissection method, evaluation of each student's way of working. Verification of the student's practical knowledge by identifying macroscopic anatomical elements on parts of corpses, macroscopic anatomical preparations, sections, plaster casts and anatomical plates.</p>
2.-Histochemical and immunohistochemical methods. Cell. General criteria for tissue recognition.	2	
3.-Spots: HE, PAS, Toluidine Blue, Anti-Actin.	2	
4.-Covering epithelium: simple, layered and pseudo-layered. Basal membrane.	2	
5.-Stains: HE, silver Impregnation, PAS, pan-cytokeratin.	2	
6.-Exocrine glandular epithelia: types of acini and tubular glands. Spots: HE, PAS, alcyanin blue, cytokeratin 8..	2	
7.-Endocrine glandular epithelia: nests, follicles, cords.	2	
8.-Fixed and mobile connective cells. Colours: HE, alkyne blue, trichrome, orcein, silver impregnation.	2	
9.-Connective fibers. Colours: HE, alkyne blue, trichrome, orcein, silver impregnation.	2	
10.-Types of connective tissue. Lax connective tissue.	2	
11.-Dense connective tissues disorganized and orderly.	2	
12.-Adipose tissue.. Reticular connective tissue	2	
13.-Seromembranous tissue (mesenter). Colors: HE, silver impregnation	2	
14.-Repeating the blade	2	
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3.-Junqueira's Basic Histology: Text and Atlas (14th ed.) - Mescher, A.L. New York, NY: McGraw-Hill Medical, 2016.

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4.-Histology - Atlas & Text Ed. VII-a. - Ross & Pawlina, Lippincott Williams and Wilkins, 2015.

5.-Handbook of Histology, 4th Edition - Gartner P.L., Elsevier, 2017.




9.-Corroborating/validating the contents of the discipline with the expectations of the representatives of the epistemic community, professional associations and employers representative of the field related to the program

The contents of the discipline are in accordance with the RNCIS standards.

10.-Evaluation

Activity Type	10.1-Evaluation criteria	10.2-Evaluation methods	10.3- Weight of the final grade
10.4-Course	Grid exam	Final evaluation: grid test with 50 questions + 3 essay topics. It is necessary to obtain a grade of 5 both in the grid test and in the subjects (minimum 5 in each subject). Continuous assessment: grid test from the course material	60% 10%
10.5- Seminar/laboratory	- The practical exam is individual and takes place in the last week of the semester. The practical exam is mandatory: - grade 5: the student must answer 100% of the 5 questions on the minimum scale - grade 10: the student	Final evaluation: practical exam	30%



	must answer 100% of all questions.		
10.6 -Minimum Performance Requirement			
1.-Knowledge of histological terminology. 2.-Recognition of the histological elements that make up the human body and the relationships between them.			
Date: 28.04.2025	Signature of the discipline coordinator: Lect. Dr. PLĂMĂDEALĂ Petru , MD, PhD 	Holder of the seminar activities: Univ. Teaching Assistant CRACIUN Gabriela-Giorgiana , PhD(c), MD  Univ. Teaching Assistant BURLEC Dora , PhD(c), MD 	
Date of approval in the Department			
Signature of the Director of Department			

Reprezentant legal F.D.M.
Presedinte
Prof. Univ. Dr. POSTĂVARU Nicolae

