

COURSE DESCRIPTION

Course Information

Course name	Histology
Course number	ANAT 231
Credit Hours (teaching units)	1+1
Departmental/level	Medical Laboratory Sciences Department / Level 3
College	College of Applied Medical Sciences
Pre-requisite	None

Methods of the Course Instructions

1. Theoretical Classes (lectures)
2. Practical Classes

Course Objectives

(A) General Objectives

In this course the students are expected to be able to demonstrate knowledge and understanding of the basic information of various techniques used in the study of cells and tissues of human body.

(B) Specific Objectives;

1. Ultra-structure of cell organelles and other components of the cell for better understanding of some physiological processes.
2. Microscopic structure of the human cell, basic tissue and all body systems
3. Introduction and history of micro techniques used in preparation of histological slides.
4. Laboratory identification of different types of connective tissues , muscular and nervous tissue.
5. Laboratory identification of different types of Blood cells.
6. Laboratory identification of Histological structures of lymphatic tissues, skin.
7. Laboratory identification of Histological structures of renal ,male and female genital organs .

Course Learning Outcomes:

By the end of this course the student should be able to:

1. Identify the ultra-structure of cell organelles and other components.
2. Identify Microscopic structure of the human cell, basic tissue and all body systems.
3. Learn technical methods used during histological preparations and electron microscopy.
4. Histological slide given to students to recognize, identify and name the main histological features.

Distribution of Course Lectures

(i) Theory Lectures:

Sr. No	Contents	Week No.	Contact Hours
1	Microscopy: Light and Electron microscopy, their structural components and corresponding uses	1	1
2	Human cell: structure and function of cell and its organelles	2	1
3	Basic tissues and glands of the body and their classification:	3	1
4	Connective tissues: composition of connective tissues (cells, fibres and ground substance)	4	1
5	Cartilage and bones.(types of bone cells)	5	1
6	Muscular tissues: different types of muscles, histological features of skeletal muscles and its relation with functions, features of smooth and cardiac muscle.	6	1
7	Nervous tissue: structural component of the nervous tissue (Neuron & Neuroglia), describe the structure of nerve fiber	7	1
8	Blood: Blood cells (RBCs, WBCs & Platelets) and process of haemopoiesis.	8	1
9	Cardiovascular system:histological features of vein, artery, capillaries and sinusoides	9	1
10	Lymphatic system: histology of lymph node, spleen thymus and tonsil	10	1
11	Skin and Respiratory system: features of Epidermis and Dermis, differences between thick and thin skins, structure of trachea, bronchus and lungs.	11	1
12	Digestive system: structure of Tongue, Salivary glands, Oesophagus, Stomach, small intestine, Large intestine	12	1
13	Urinary system: structure of Kidney, Ureter, Urinary bladder and Urethra.	13	1
14	Endocrine system: brief structure of Pituitary gland, Thyroid, Parathyroid glands and Suprarenal gland	14	1
15	Male genital organs: structure of Testis, Epididymis, Vas deferens and Prostate	15	1

(ii) Practical Session:

Sr. No.	Content	Week No	Contact Hours
1	Visualization of the slides of the following tissues under microscope	1	2
2	Epithelium	2	2
3	Connective tissue	3	2
4	Cartilage and bone	4	2
5	Muscle	5	2

6	Blood	6	2
7	Nervous tissue	7	2
8	Cardiovascular system	8	2
9	Lymphoid organs	9	2
10	Skin	10	2
11	Respiratory system	11	2
12	GIT & Associated glands I	12	2
13	GIT & Associated glands II	13	2
14	Urinary system	14	2
15	Male and Female genital organs	15	2

Grading Policy & Components

Function	Marks Theory		Marks Practical	
	Continuous Assessment (C.A)	Quiz 1	10	Quiz 1
Quiz 2		10	Reports	10
Assignment		2.5	Assignment	5
Presentation		2.5		
Total		25	Total	25
Final	80% MCQs	20	Quiz	25
	20% Assay type questions	5		
Total (CA + Final)	Total	50	Total	50

Text Books :

1. Junqueira, L.C. and Carneiro, J Basic Histology, Text and Atlas, 10th ed. (2003) Lange Medical Books, McGraw-Hill, New York, London, Toronto. **ISBN:** 0071630201 | 480 pages | File type: **PDF** | 133 mb ... <http://rapidshare.com/files/364086667/Junqueira.chm>

Reference Books :

1. Anatomical record (www.wiley.com/anatomicalrecord)
2. Journal of Histology. (www.hindawi.com/journals/jh/)
3. Burkitt, H.G.; Young, B. and Heath, J.W. Wheater's Functional Histology, A Text and Coloured Atlas, 4th ed. (2001) ELBS with Churchill Livingstone. **ISBN** 978-1-4614-4313-1;