Course Plan of : Anatomy & histology (1)

II. Course Description:

The course of human anatomy and physiology is designed to prepare the students with an understanding of the structural basis of the human body both at gross and microscopic levels. The course also provides an overview of the cells, the fluids and electrolytes, and acid–base balance. It includes also the laboratory period deals with the integumentary system, the musculoskeletal system, the head, neck, the spine and thorax).

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	**The cell and the cellular environment**	▪ **Introduction** ○ **The cellular structure :** ○ The normal cell ✓ Cell structure • The cell membrane • The cytoplasm • The organelles ○ Cell function ○ Tissues ○ Organs, organ systems, and the organism ○ System integration	1	2	a1, b1
2	**The cellular environment: fluids and electrolytes**	▪ **The cellular environment: fluids and electrolytes** ○ Water ✓ Hydration ○ Electrolytes ○ Osmosis and diffusion ✓ Water movement between intracellular and extracellular compartments	2	4	a1

		○ Water movement between intravascular and interstitial compartments			
	Tissues	Introduction Epithelial Tissues Muscular Tissues ○ Nervous Tissues	1	2	a1
4	**The Human Body: An Orientation**	A. Anatomical terminology B. Directional terminology C. Planes and regions of the body ▪ D. Overview of body systems	1	2	
5	**Skin and the Integumentary System**	▪ **The integumentary system** ○ **The skin** ✓ Epidermis ✓ Dermis ✓ Subcutaneous tissue Accessory organs of the skin Regulation of body temperature Skin color ○ Common skin disorder	1	2	a1, b1, c1, d1
6	Blood	Basic hematology – plasma and cellular components B. Hemostasis, Hematopoiesis, C. Hemoglobin production, iron cycle, oxygen transport D.blood cell identification	1	2	a2, c2, d2
7	**Midterm exam**	**Midterm exam**	1	2	a1, b1, c1, d1
8	**Skeletal System**	Bone structure Bone tissue Bone development Types of Bones Function of bones Organization of the skeleton The Axial Skeleton • The Appendicular Skeleton ✓ Joint structure • Types of joints • Ligaments Joint capsule • ✓ The extremities • Wrists and hands • Elbows • Shoulders	2	4	a2, b1, b2, c2, d2

		• Ankles and feet • Knees • Hips and pelvis			
9	**The muscular system**	○ **Muscular tissue & structure** ✓ Definition ✓ Types and names of muscles, shapes, structure and function ✓ Type of muscles movement. ✓ Muscles of abdominal wall ✓ Muscles of respiration ✓ Pelvic diaphragm	3	6	a2, b1, b2, c2, d2
10	**Urinary system**	▪ **The urinary system** ▪ **Histology of the urinary system** ○ **The kidneys** ✓ **Gross and microscopic anatomy of the kidney** ✓ **Kidney physiology** • **Overview of nephron physiology** • **Tubular handling of water and electrolytes** • **Tubular handling of glucose and urea** • **Control of arterial blood pressure** • **Control of erythrocyte development** ○ **The ureters** ○ **The urinary bladder** **The urethra**	1	2	a2, b2, c2, d2
11	**Lymphatic/**	Lymphatic organs structure	1	2	a2, c2,

	Immune System	and tissue ✓ B. Nonspecific and specific defense mechanisms			d2
12	**Final exam**	**Final exam**	**1**	**2**	a2, b1, b2, c2, d2
Number of Weeks /and Units Per Semester			**16**	**32**	

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	**Body Cells** • Cell & Tissues	2	4	**c1**
2	**Body directions and movements**	1	2	**c1**
3	**Integumentary system** • Demonstration of the skin • Demonstration of the Epidermis • Demonstration of the Subcutaneous tissue	3	6	**c1**
4	**Blood** • Microscopy, blood cell identification	1	2	**c1**
6	**The skeletal system** • Human skeleton,	2	4	**c1**
5	**Midterm exam**	1	2	**c1**
7	**Muscular system** Muscular system and Joints	2	4	
10	• **Urinary system** The nephron Urine formation and control • Composition of urine	1	2	**c1**
11	• **Lymphatic/ Immune System** Nonspecific and specific defense mechanisms C. Hypersensitivity and tissue rejection • D. HIV and AIDS	2	4	**c2**
12	**Final exam**	1	2	**c2**
Number of Weeks /and Units Per Semester		**16**	**32**	