

- I. Chapter 1 The Human Body: An Orientation**
- a. Know the anatomical position and directional terms
 - i. Figure 1.7
 - ii. Table 1.1
 - b. Know the various body planes and sections
 - i. Medial/midsagittal plane
 - ii. Frontal/coronal plane
 - iii. Transverse plane
 - c. Know the various body cavities and what organs would be found in each
 - i. Cranial cavity
 - ii. Vertebral cavity
 - iii. Thoracic cavity
 - 1. Pleural cavity
 - 2. Pericardial cavity
 - iv. Abdominal cavity
 - v. Pelvic cavity
 - d. Know the various membrane layers that surround the cavities
 - i. Parietal
 - ii. Visceral
 - e. Know the 4 abdominopelvic quadrants
 - f. Know the 9 abdominopelvic regions
- II. Chapter 4 Tissue: The Living Fabric**
- a. Definition of a Tissue
 - b. Know the 4 types of Tissue
 - i. Epithelial
 - 1. Avascular but innervated
 - 2. Classification of epithelial tissue
 - a. Simple vs Stratified vs Pseudostratified
 - b. Cell shapes
 - i. Squamous
 - ii. Cuboidal
 - iii. Columnar
 - 3. Be able to identify any combinations of the above in a stained tissue sample (Figure 4.3)
 - ii. Connective
 - 1. Know the common characteristics of epithelial tissue
 - a. Common origin (mesenchyme embryonic tissue)
 - b. Degrees of vascularity
 - c. Extracellular matrix

2. Know the 4 classes of Connective tissue and their subclasses (Table 4.1)
 - a. Connective tissue proper
 - i. Loose connective tissue
 1. Areolar
 2. Adipose
 3. Reticular
 - ii. Dense connective tissue
 1. Regular
 2. Irregular
 3. Elastic
 - b. Cartilage
 - i. Hyaline cartilage
 - ii. Elastic cartilage
 - iii. fibrocartilage
 - c. Bone
 - i. Compact
 - ii. Spongy
 - d. Blood (fluid extracellular matrix)
3. Be able to identify a tissue slide the above mentioned connective tissues
4. Table 4.8
- iii. Muscle
 1. Know the 3 types of muscle and be able to identify tissue samples
 - a. Skeletal
 - b. Cardiac
 - c. Smooth
 2. Table 4.9
- iv. Nervous
 1. Be able to identify a nervous tissue sample
 2. Know the parts of a neuron
 - a. Dendrites
 - b. Cell body
 - c. Axon
 3. Table 4.10
- c. Know the 3 types of membranes
 - i. Cutaneous (dry)
 - ii. Mucous (wet)
 - iii. Serous (wet)
 - iv. Figure 4.11
- d. Know the steps to tissue repair and what is involved in each (Figure 4.12)
 - i. Inflammation
 - ii. Organization
 - iii. Regeneration

III. Chapter 5 Integumentary System

- a. 2 layers of the skin
 - i. Epidermis (outermost) innervated but avascular
 1. Layers of the epidermis
 - a. Stratum corneum
 - b. Stratum lucidum (thick skin only)
 - c. Stratum granulosum
 - d. Stratum spinosum
 - e. Stratum basale
 2. Know the types of cells that make up the epidermis and where they are located
 - ii. Dermis (innermost) innervated and avascular
 1. Layers of the dermis
 - a. Papillary
 - b. Reticular
 2. Know these special features
 - a. Cleavage lines
 - b. Dermal ridges/dermal papillae/friction ridges
 - c. Flexure lines
- b. Hypodermis is beneath the skin
- c. Know the various tissue types that make up each of these layers
- d. Be able to identify these layers on a model of the skin and know the various structures present in each (Figure 5.1)
- e. Know the various pigments that contribute to skin color and functions
 - i. Melanin
 - ii. Carotene
 - iii. Hemoglobin
- f. Hair and nails
 - i. Hair consists of dead keratinized cells
 - ii. Hair shaft anatomy (cuticle, cortex, medulla)
 - iii. Hair follicle
 - iv. Anatomy of nail
- g. Glands
 - i. Sweat (sudoriferous)/secrete sweat mostly water and salt
 1. Eccrine (merocrine) vs apocrine
 - ii. Sebaceous (oil)/secrete sebum
- h. Functions of skin
- i. Skin cancer
 - i. 3 types of skin cancer
 1. Basal cell carcinoma (least dangerous and most common)
 2. Squamous cell carcinoma
 3. Melanoma (most dangerous)
 - ii. ABCD rule
- j. Burns

- i. Degrees of burns
- ii. Rule of Nines
- iii. Worried about dehydration

IV. Chapter 6 Bones and Skeletal Tissue

- a. 3 types of cartilage and their distribution throughout the skeleton (Figure 6.1)
- b. Functions of bone
- c. Axial vs Appendicular Skeleton
 - i. Be able to identify the bones of each
- d. Shapes of bones and know examples of each (Figure 6.2)
 - i. Long
 - ii. Short
 - iii. Flat
 - iv. Irregular
 - v. Sesamoid (bone found within tendon, i.e. Patella)
- e. Gross anatomy of bone (Figure 6.3)
 - i. Compact vs Spongy
- f. Anatomy of long bone (Figure 6.4) and where yellow and red marrow is found
- g. 5 cell types of bone tissue and functions (Figure 6.5)
 - 1. Osteogenic cells
 - 2. Osteoblasts
 - 3. Osteocytes
 - 4. Osteoclasts
 - 5. Bone lining cells
- h. Microscopic anatomy of compact bone (Figure 6.7)
 - i. Osteon
 - ii. And how it is arrange in compact bone
- i. Endochondral Ossification-formation of bone (Figure 6.8)
- j. Bone remodeling
- k. Fractures and bone repair (Figure 6.14)
- l. Bone Disorders: Know the characteristics and causes of each
 - i. Osteomalacia and Rickets
 - ii. Osteoporosis
 - iii. Paget's disease

V. Chapter 7 The Skeleton

- a. Axial (know the structures listed on the study guide for the axial test)
 - i. Skull
 - 1. Cranial bones
 - 2. Sutures
 - 3. Facial bones
 - 4. Sinuses and cavities
 - ii. Thoracic Cage
 - 1. Sternum (3 fused bones)

2. Ribs (true, false and floating)
3. Thoracic vertebrae
- iii. Vertebral column
 1. 5 regions
 2. Know the differences between the 3 types of vertebrae
 3. Know the anatomy of a vertebra
 4. Atlas, axis and vertebral prominens
- b. Appendicular (know structures on Study guide given for the appendicular test)
 - i. Upper and Lower Limbs
 - ii. Pectoral and Pelvic Girdle

VI. Chapter 9 Muscles and Muscle Tissue

- a. 3 Types of muscle tissue
 - i. Know the differences in function
 - ii. Be able to identify slides of each
 - iii. Know the differences in cell type
- b. Anatomy of the muscle (Figure 9.1)
 - i. Tendon attaches to bone
 - ii. Epimysium
 - iii. Muscle
 - iv. Perimysium
 - v. Fascicles
 - vi. Endomysium
 - vii. Muscle cells/fibers
 - viii. Myofibrils