Introduction of Anatomy and Physiology

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If something is GREY on the handout, you are not responsible for it this semester.

1. Anatomy (Definition and Subdivisions)
   - Morphology
     A. Gross (Macroscopic) Anatomy
        i. Regional Anatomy
        ii. Systemic (or Systematic)
        iii. Surface Anatomy
     B. Microscopic Anatomy
        i. Cytology
        ii. Histology
     C. Developmental Anatomy
        i. Embryology
     D. Pathological Anatomy
     E. Radiographic Anatomy
     F. Molecular Biology
2. Physiology (Definition and Select subdivisions)
   A. Renal Physiology
   B. Neuro Physiology
   C. Cardiac Physiology

3. Life Processes
   A. Metabolism
      i. Metabolic Subdivisions:
         a. Catabolism
         b. Anabolism
      ii. Processes Involved In Metabolism
         a. Ingestion
         b. Digestion
         c. Absorption
         d. Respiration (Pull out your handout on Cellular Respiration)
         e. Assimilation
         f. Secretion
         g. Excretion
   B. Excitability
   C. Conductivity
   D. Contractility
   E. Growth
   F. Differentiation
i. Stem Cells
ii. Stem Cell Classification

Stem Cell Classification

G. Reproduction
   i. Asexual
   ii. Sexual

4. Levels of Structural Organization (see diagram in text as well as handout)
   A. Chemical Level
   B. Cellular Level
   C. Tissue Level
   D. Organ Level
   E. System Level
   F. Organismic Level
5. Fluids of the Body

A. Intracellular Fluid (Not “inter”)  
B. Extracellular Fluid  
   i. Interstitial Fluid  
      a. Interstitium (or Interstitial Tissues)  
   ii. Plasma

6. Homeostasis and Stress

A. Homeostasis  
   i. Concentration  
   ii. Pressure  
   iii. Temperature  
B. Homeostatic Imbalances  
   i. Stress, Disease, and Death

7. Feedback Systems  
(Pull out your downloadable handout)  
(Be able to illustrate homeostatic model found in handout, and provide an example for both positive and negative feedback systems)

   • Nervous System  
   • Endocrine System
8. **Structural Plan** (See diagrams in text)
   A. **Anatomical Position**

9. **Language of Anatomy** (see diagrams in text)
   A. **Cephalic**
      a. Cranial
      b. Facial
      c. Frontal
      d. Orbital or Ocular
      e. Otic
      f. Buccal
      g. Nasal
      h. Oral
      i. Mental
   B. **Cervical**
   C. **Trunk**
      i. **Thoracic**
         • Mammary
      ii. **Abdomen**
         • Umbilical
      iii. **Pelvis**
         • Inguinal
         • Pubic
   D. **Axillary**
   E. **Brachium & Antebrachium**
   F. **Cubital & Antecubital**
10. Directional Terms (see diagrams in text)

A. Superior & Inferior
B. Anterior & Posterior
C. Cranial & Caudal
D. Dorsal & Ventral
E. Proximal & Distal
F. Medial & Lateral
G. Superficial & Deep

11. Planes and Sections (see diagram in text)

A. Sagittal Plane
   i. Midsagittal (median) Plane
   ii. Parasagittal plane
B. Frontal plane (or Coronal)
C. Horizontal plane (or Transverse)
D. Oblique
12. Body Cavities (*Pull out your downloadable handout*)

A. Dorsal Body Cavity (see diagrams in text)
   i. Cranial Body Cavity
   ii. Vertebral or Spinal Canal

B. Ventral Body Cavity (see diagrams in text)
   i. Thoracic Cavity
      * Viscera
         a. Plural Cavities
            • Parietal Pleurae
            • Visceral Pleurae
            • Pleural Cavity
         b. Mediastinum
         c. Pericardial Cavity
            • Visceral Pericardium
            • Parietal Pericardium
            • Pericardial Cavity
   ii. Abdominopelvic Cavity (see diagrams in text)
      a. Abdominal Cavity
      b. Pelvic Cavity
         • Peritoneum
         • Mesenteries
      c. Intraperitoneal vs. Retroperitoneal
13. Anatomical Areas (see diagrams in text)

A. Abdominopelvic Regions
   
   i. Orientation
      
      a. Umbilicus
   
   ii. Nine Regions
      
      a. Umbilical Region
      
      b. LEFT Lumbar Region
      
      c. RIGHT Lumbar Region
      
      d. Epigastric Region
      
      e. LEFT Hypochondriac Region
      
      f. RIGHT Hypochondriac Region
      
      g. Pubic Region
      
      h. LEFT Iliac or Inguinal Region
      
      i. RIGHT Iliac or Inguinal Region

B. Abdominopelvic Quadrants
   
   i. Right Upper Quadrant (RUQ)
   
   ii. Left Upper Quadrant (LUQ)
   
   iii. Right Lower Quadrant (RLQ)
   
   iv. Left Lower Quadrant (LLQ)

Important Reminder: please have your notebook prepared by the first exam. The notebook should be organized according to lecture topics (Introduction, chemistry, cytology, histology, etc) and ALL outlines and handouts are to be found within. Get those three extra points!!