

ANATOMY & PHYSIOLOGY – COURSE OVERVIEW

Updated: 11/19/2010

1ST 9 WEEKS

- I. Introduction to Anatomy and Physiology
 - A. Course syllabus
- II. Levels of Structural Organization
 - A. Cells, Tissues, Organs, Organ Systems
 - B. Homeostasis
 - C. The Language of Anatomy
- III. Basic Chemistry
 - A. Macromolecules
 - B. Chemical Reactions in Living Things
 - C. Enzyme Action
- IV. Animal Cells
 - A. Eukaryotic Cell Structure and Function
 - B. Cell Transport (Diffusion and Osmosis)
- BENCHMARK 1**
- V. Integumentary System
 - A. Structure and Function of Skin
- VI. Skeletal System
 - A. Function, Classification, and Structure of Bones
 - B. Axial, Appendicular, and Joints
- VII. Muscular System
 - A. Types of Muscles (Skeletal, Cardiac, and Smooth)
 - B. Function of Muscles
 - C. Chemistry of Muscle Contraction
- BENCHMARK 2**
- VIII. Nervous System
 - A. Central Nervous System
 - B. Peripheral Nervous System
 - C. Special Senses (Vision, Hearing, Taste, and Smell)
- BENCHMARK 3**
- IX. Endocrine System
 - A. Glands (Pituitary, Thyroid, Parathyroid, Adrenal, Pancreas, Pineal, Thymus, Gonads)
- BENCHMARK 4**

2ND 9 WEEKS

- X. Circulatory System
 - A. Composition and Functions of Blood
 - B. Structure of Heart and Blood Vessels
- XI. Lymphatic System
 - A. Body Defenses
 - B. Guest speaker
- BENCHMARK 5**
- XII. Respiratory System
 - A. Structure and Function
 - B. Respiratory Mechanics
- XIII. Digestive System
 - A. Structure and Function
 - B. Accessory Organs
 - C. Nutrition
- BENCHMARK 6**
- XIV. Urinary System
 - A. Kidney and Nephron Structure and Function
 - B. Ureters, Urethra, Bladder
 - C. Fluid Balance
 - D. Field trip to dialysis unit
- XV. Reproductive System
 - A. Male Structure
 - B. Female Structure
 - C. Pregnancy and Embryonic Development
- BENCHMARK 7**
- XVI. Dissection: Fetal pig
- LAB PRACTICAL**