BIOLOGY 217
HUMAN ANATOMY & PHYSIOLOGY I
EXAM 2 REVIEW SHEET

Material Covered on Exam: Chapters 5-8

For this exam, you will be expected to . . .

- Describe the various functions of skin.
- Name the types of tissues associated with the epidermis, dermis, and hypodermis.
- List the 5 major layers of epidermis and describe the functions and characteristics of each.
- List the 2 major areas of the dermis and describe the characteristics of each.
- Describe the factors that normally contribute to skin color.
- Compare the structure, location, and product of sweat glands versus oil glands.
- Compare and contrast the modified sweat glands including: eccrine, apocrine, ceruminous, and mammary glands.
- List the 4 different sensory receptors of skin and describe each.
- List the parts of a hair and follicle and explain the function of each part. Also describe the relationship of the arrector pili muscle relative to the hair follicle.
- Describe the structure and function of nails.
- Summarize the characteristics of the three major types of skin cancer and discuss the ABCDE Rule.
- Describe the different types of hormones that affect skin.
- Describe the various skin disorders discussed in class as well as the age related changes that occur in skin.
- Define the following terms: strata, keratin, cyanosis, epidermal ridges, dermal papillae, cleavage lines, striae, cutaneous network, and melanosomes.
- List and describe five important functions of bones.
- Discuss the various classifications of bones with respect to location, shape, and consistency.
- Define the scientific terms for the various bone markings associated with articulation sites, muscle attachment sites, and openings or depressions.
- Describe the gross anatomy of long bones including: diaphysis, epiphysis, metaphysis, trabeculae, periosteum, endosteum, medullary cavity, epiphyseal line/plate, etc.
- Describe the histology of compact bone including: central canal, lacunae, canaliculi, lamellae, circumferential lamellae, interstitial lamellae, perforating canals, and osteons.
- Name and describe the 4 different cell types associated with bone.
- Discuss the organic and inorganic compositions of bone.
- Compare and contrast the mechanisms for the formation of long bones versus flat bones.
- Describe the process of bone growth in terms of length and width.
- Describe bone remodeling and repair processes.

- Name and explain how 2 hormones regulate a person's blood-calcium levels relative to bone deposition and resorption.
- Describe the characteristics of the various bone disorders discussed in class.
- Discuss the different types of fractures and how they are classified.
- Name the major bones associated with axial versus the appendicular skeleton.
- Be able to indicate the number of bones in the adult skeleton and within various regions/structures of the body such as: skull, hands, feet, ribs, vertebrae, etc.
- Identify the bones and parts of bones that participate in articulations about the body.
- Name, describe, and identify the important markings associated with each of the major bones of the body.
- Define fontanels and indicate their significance in the fetal skull.

This study guide covers the majority of information on the exam, but possibly not all of it. You are still responsible for any information that was covered in the notes but not put on this guide (intentionally or unintentionally). Good Luck and Study Hard!!