1. Be able to identify the basic functions and characteristics of epithelial and connective tissue.
   a. How are the cells spaced? If epithelial tissue, what can connect cells together? Why would a tissue have these connections?
   b. Do they have a blood supply?
   c. Do they have a nerve supply?

2. Be able to identify the basic locations and functions of epithelial and connective tissue.

3. Be able to identify where each of the specific types of epithelial and connective tissues we discussed are located throughout the body and the specifics of each tissue.
   a. Epithelial (simple squamous, simple columnar, simple cuboidal, stratified squamous, transitional, pseudostratified ciliated columnar)
   b. Connective tissue (mesenchyme, blood, areolar, adipose, reticular, dense irregular, dense regular, elastic, cartilage and bone)

4. Be able to list the 3 components of connective tissue and know the purpose of each item (cells, ground substance and fibers).
   a. What is the ground substance composed of?

5. Be able to distinguish the 3 types of fibers found in connective tissue (collagenous, elastic, reticular).
   b. What protein are they composed of?
   c. What is their primary use?

6. Be able to distinguish between and give examples of an exocrine and an endocrine gland.

7. Know the location, function and structure of the 4 types of membranes (serous, mucous, synovial and skin)

8. Identify the 3 serous membranes in the body and be able to distinguish between the parietal and visceral layers of the membrane.
   a. What do we call the serous membrane around the heart? Lungs? Abdominal organs?

9. Be able to identify each of the layers of epidermis, IN ORDER. Know what cells comprise the layers and the function of each layer.

10. Identify the 2 layers of the dermis and the components found in each of these layers.
    a. What type of tissue is each made of?

11. Know the locations and functions of the following cells and proteins.
    a. Collagen, elastin, keratin, melanin, melanocytes, keratinocytes, Langerhan’s cells
12. Know the differences in structure between the 3 types of cartilage and the specific locations where they can be found.

13. Know the differences in structure and location of the 2 types of bone (compact and spongy).
   a. What are the 3 types of cells in bony tissue?
   b. How are the layers and cells arranged in osteons?
   c. What are the spaces osteocytes live in? How do they pass nutrients and wastes between them?
   d. What are the arches called that make up spongy bone?

14. Be able to identify the parts and cavities of a long bone (epiphyses, diaphysis, epiphyseal plate vs. line, periosteum, endosteum, medullary (marrow) cavity, red vs. yellow bone marrow, central (Haversian) vs. perforating (Volkmann’s) canals)

15. Understand the difference between intramembranous and endochondral bone formation:
   a. What bones do they form?
   b. Does the bone begin as dense irregular C.T. or cartilage?

16. Know the vitamins necessary for normal bone formation and maintenance (vitamin D, C and A). Know the diseases associated with a lack of these vitamins (rickets, osteomalacia, scurvy) that we had time to discuss.

17. Know the hormones necessary for normal bone growth and maintenance (growth hormone, thyroxine, sex hormones). Also know any diseases associated with abnormalities in these hormones we had time to discuss (giantism, acromegaly, pituitary dwarfism, osteoporosis)

18. Know how calcitonin and parathyroid hormone maintain homeostatic blood levels of calcium.

19. Know the process of bone growth in length and width.

20. Know the process of bone repair.
   a. What is a hematoma?
   b. What type of cartilage is used to repair a fracture?