BSC 2085 Objectives

The student will demonstrate:

1. an ability to correctly use descriptive anatomical terms relating to position, planes of section, body surfaces and body cavities of man.

2. understanding of the atomic structure and function.

3. comprehension of chemical bonding including ionization and the concept of pH.

4. knowledge of the major groups of organic molecules (carbohydrates, lipids, protein, and nucleic acids) found in living systems, including structure, function and interrelationships.

5. a knowledge of the microscopic anatomy of a generalized animal cell and an understanding of the functions of cell organelles.

6. an understanding of the cell cycle including mitosis and its significance.

7. knowledge of the four basic tissues of the human body.

8. a knowledge of the major functions of the Human Skeletal System.

9. a knowledge of the histological features of compact and cancellous bone.

10. a knowledge of the two methods of bone formation in the human body (endochondral and intramembranous).

12. a knowledge of normal bone formation and maintenance in terms of deposition and resorption and the correlation with specific bone disease, e.g., osteoporosis.

13. a knowledge of the process of bone repair and remodeling.

14. a knowledge of the types of articulations, examples of each, and the types of movement they permit.

15. a knowledge of the role of the Integumentary System by listing and summarizing functions of the integumentary system as they relate to specific layers of epidermis and dermis.
16. a knowledge of the process of the wound healing.
17. an ability to compare and contrast between the three basic muscle types as to gross structure, histology, and function.
18. a knowledge of the macroanatomy and microanatomy of a skeletal muscle and the role of each part in muscle contraction.
19. an understanding and comprehension of skeletal cardiac and smooth muscle the physiology and the necessary energy interactions permitting muscle contractions.
20. a knowledge of the nervous tissue by identifying the structure and function of representative cell types, e.g., neuron and neuroglia.
21. an understanding of the microanatomy of neurons and their specialized cellular structural components.
22. comprehension of nervous tissue physiology including membrane channels, synaptic transmission and neuromuscular junctions.
23. an understanding of cranial and spinal reflexes.
24. a comprehension of the central nervous system by describing anatomical features of the brain and spinal cord and their functions.
25. an understanding of the Peripheral Nervous System by defining components parts and their anatomical and physiological relationship with the central nervous system.
26. a knowledge of the parasympathetic and sympathetic divisions of the Autonomic Nervous System and an understanding of the importance of neurotransmitters in maintaining homeostasis.
27. a knowledge of the anatomy and physiology of the special senses.
28. a knowledge of the anatomy and physiology of general sensory receptors.