The following are some suggestions as to topics to spend time studying. **This list or any list like it cannot be expected to cover each and every topic possible for the upcoming exam.** However, it should give you a reasonable idea as to the breadth of material. My suggestion is to use this list as a way to help you organize your notes and your reading. "***" indicates material not covered in lecture that you need to read independently in your text.

**Chapter 1**

origins of the study of anatomy and physiology
*** factors in the maintenance of life
sections of the body
homeostatic properties
requirements and properties of feedback mechanisms
body organization
the basic systems
*** Medical Imaging: Illuminating the Body (p. 18-19)

**Chapter 2**

organization of complexity
properties of fats, carbohydrates, and proteins
primary, secondary, tertiary, and quaternary structure of proteins
chemical orbitals and the different bonds
properties of atoms
reaction types
pH
osmosis and diffusion... all the various types
DNA base paring

**Chapter 3**

cell membrane properties, arrangements, composition
transport mechanisms
hypertonic/hypotonic/isotonic
organelles - structure and function
transport across membranes
metabolic activities of the cell....
***catabolism and anabolism
cell life cycle and relationship to mitosis
stages of mitosis, definitions

**Chapter 4**

characteristics of epithelial tissue - types and function
receptor types
eccrine glands - composition, function, production
connective tissues - types and functions
*** Cancer - The Intimate Enemy (p. 142-143)

**Chapter 5**

reactions of exposure to the sun’s rays and effects
epidermis, dermis, subcutaneous layers - composition, function
accessory organs of the skin... such as hair follicles - composition, function
body temperature regulation

**Other Relevant Topics**

Be sure to understand the ideas behind the in-class discussion questions!
Be certain to think about APPLICATION style questions!
Be sure to know the relevant historical figures and their discoveries for each chapter!

**Other Advice**

Remember.... roughly 40-45% of the exam is based on memorization, 40-45% of the exam is based upon application/analysis questions and the remainder (~10-20%) is based upon assigned readings.

Working hard to think deeply about the subject matter in this class will help you to become stronger in the rest of your major and help you to become leaders in your future profession.