

SCC BIO 260/Human Anatomy Pre-Assessment Topics and Terms: Updated March 2026

Students are expected to be able to explain and provide context for the following:

General Science and Vocabulary Topics and Terms

1. Definitions and applications of length, mass, time, and volume
2. Metric units for length, mass, and volume
3. Prefixes including: thermo-, photo-, mono-, di-, bi-, tri-, poly-, a-
4. Ability to read and interpret a graph
5. Ability to calculate an integer mathematical expression with negative numbers
6. Definitions of hydrophobic and hydrophilic
7. Comparing and contrasting potential vs. kinetic energy
8. Definitions including: concentration, evaporation, precipitation, condensation
9. States of matter: solid, liquid, gas

Chemistry Topics

1. Chemical atomic arrangement and characteristics of subatomic particles
2. Atomic octet theory
3. Chemical formulas of common biological chemicals including glucose, carbon dioxide, water, molecular oxygen, hydrochloric acid, and sodium chloride
4. Formation of ions, properties of ions
5. Understanding of pH scale, what makes an acid, what makes a base
6. Types of chemical bonds including hydrogen, covalent, and ionic
7. Basic chemical reaction knowledge: products vs. reactants
8. Definitions: atomic number, atomic symbol, element, atom, mass number, molecule, and compound
9. Definitions: solution, solvent, solute

Biology Topics

1. Biological hierarchical levels of organization
2. Definition and properties of an enzyme
3. Functions and monomers of nucleic acids, proteins, and carbohydrates
4. Comparing and contrasting active and passive transport processes including diffusion, osmosis, and various types of active transport through the phospholipid bilayer of a plasma/cell membrane
5. DNA structure including complementary base-pairing
6. Cellular theory
7. Functions of various organelles and cellular structures such as: plasma membrane, cytoplasm, mitochondrion, ribosome, cilia, lysosome, Golgi apparatus, nucleus, smooth endoplasmic reticulum, rough endoplasmic reticulum, centrioles, microtubules, cytoskeleton
8. Cellular processes including: transcription, translation, DNA replication, mitosis, cytokinesis, cellular respiration
9. Functions of organ systems
10. Genetics basics: genes, alleles
11. Understanding of permeability of the plasma membrane
12. Identifying the four primary tissue type functions