

## BIOLOGY

**Important**

- Cytoskeleton Components
- Anatomy & Life Cycles of Bacteria and Viruses
- Mitosis and Meiosis
- Organ Systems  
(Reproductive, Respiratory, Digestive, Muscular, Skeletal, Integumentary, Circulatory, Excretory, and Lymphatic)
- DNA Biotechnology

**Extremely Important**

- Classical and Molecular Genetics
- Enzymes
- Cell Membrane
- Nervous System
- Endocrine System
- Central Dogma of Biology

## BIOCHEMISTRY

**Keep in Mind:** Generally, most of Biochem is very important.

**Important**

- Structures, Properties and Metabolism of Carbs, Fats, and Proteins
- Gluconeogenesis, Beta-Oxidation, Pentose Phosphate Pathway
- Structures, Properties, and Metabolism of Nucleic Acids
- Membranes

**Extremely Important**

- Aerobic and Anaerobic Respiration  
(Prokaryotic cells, ETC, TCA, and Glycolysis)
- Lab Techniques (Reducing/Non-Reducing SDS-PAGE, PCR, Blots, Cation and Anion Exchange, Ligand affinity)
- Enzyme Inhibitions and Kinetics (Michaelis-Menten)
- Amino Acids  
Structures, Chemical Properties + 1-Letter Abbreviations + 3-Letter Abbreviations

## PHYSICS

**Note:** Be prepared to do a lot of calculations with scientific notation without calculators and keep an eye out for concepts that can be linked to biology and healthcare

**Important**

- Light and Optics
- Sound and Wave (Photon Numbers vs. Energy of Photons)
- Radioactive Decay
- Energy and Force
- Electromagnetism

**Extremely Important**

- Circuits
- Kinetic Molecular Theory
- Units and Conversions
- Fluids  
(Relationships Between Pressure, Diameter, Resistance)  
(Connection to Circulatory System)

## GENERAL CHEMISTRY

**Important**

- Periodic Trends  
(Electronegativity, Atomic Size, etc.)
- Redox Reactions
- Electrochemistry  
(Electrochemical Cell)

**Extremely Important**

- Equilibrium
- Bioenergetics (Free Energy, Entropy, Enthalpy)
- Gases and Pressure (Ideal Gas Law)
- Solubility and Molarity
- Basic Chemistry Math  
(Balancing Equations, Scientific Notation, Units (SI and conversions))
- Acid/Base (pH, pI, and Buffers)
- Stoichiometry

## ORGANIC CHEMISTRY

**Important**

- SN1 vs SN2 Reactions
- Aldol Condensation
- Nomenclature (IUPAC)

**Extremely Important**

- Types of Isomers (Diastereomers, Anomers, Enantiomers, etc.)
- Lab Techniques (NMR, Chromatography, IR, Distillation, etc.)
- Functional Groups
- Bonding (Carbonyl Group)

## SOCIOLOGY

**Important**

- Social Determinants of Health
- Healthcare Disparities
- Cultural Relativism vs. Ethnocentrism
- Dramaturgical Theory

**Extremely Important**

- Functionalism vs. Conflict Theory vs. Symbolic Interactionism vs. Social Constructionism
- Roles, Groups, and Status
- Social Institutions

## PSYCHOLOGY

**Important**

- Stereotype vs. Discrimination vs. Prejudice
- Sensation and Perception  
(Signal Detection Theory)
- Memory  
(Storing and Retrieval)
- Theories of Motivation

**Extremely Important**

- Social Perception (Halo Effect, Just World, Primacy/Recency)
- Classical and Operant Conditioning
- Attribution Theory
- Research Design and Interpreting Statistical Data
- Psychological Disorders
- Neurobiology and Neurotransmitters
- Identity and Development Theories (Piaget and Kohlberg)
- Biases (Cognitive Bias)
- Theories of Emotion