1ST SEMESTER CHEMISTRY FINAL REVIEW

Chapter 2

What is the definition of matter?
States of matter and their properties.
Physical properties VS. chemical properties
Classification of matter
Elements and their symbols
Chemical formulas – what do they tell us?

Chapter 3

Scientific notation
Accuracy VS. precision
Significant figures
    Adding, subtracting
    Multiplying, dividing
Metric system conversions
    Prefixes
    Conversions
Density problems
Celsius/Kelvin conversions
Converting m/s into km/hr, money problem for a given mass of gold

Chapter 4 & 6

Parts of the atom
Scientists and their contributions
Atomic symbols and what they tell us with the atomic # and mass #
Isotopes
Traits of metals, nonmetals, and transition elements
Periodic table traits
How do elements differ?

Chapter 5

Electron configurations
Quantum numbers
Pauli's exclusion principle
Electrons and their orbitals

Chapter 9

Ions and ionic charge – determining from periodic table columns
Ionic compound VS. molecular compounds
Cation VS. anion
Formula writing
Formula naming
Acid naming

Chapter 10

Moles to atoms
Atoms to moles
Molecular mass in grams
Mass to grams
Density of gas at STP
Volume to atoms
Percent composition
Empirical formula
Molecular formula