

Mixing GenChem + OChem

The first two semesters with Spectroscopy

Atomic theory

Lewis struct

3D Molecular Structure

Non-covalent interactions

Phase change

Properties of gases

Thermochemistry

Solubility and solutions

Thermodynamics and equilibria

Acid/Base equilibria

Kinetics

Isotopic Mass Spectrometry

Skeletal structure of hydrocarbons

Constitutional and conformational isomerism

Hybridization

Polarity and molecular dipole

Conjugation and resonance

Functional groups

Non-covalent interactions of functional groups

Heat capacity, enthalpy of phase change of organic substances

Vapor pressure and solubility of organic solvents

Biomolecules: structure, polarity, and chirality

Stereochemistry

Conformational analysis

Proton transfer reactions and factors affecting their relative pKa

Elementary reactions and organic mechanisms

SN1/SN2

E1/E2