

The topics below have been covered in recent Chemistry 104 courses at the University of Illinois. They may appear on the Chemistry Proficiency Exams for Chemistry 104.

Thermodynamics

Kinetics

Electrochemistry

Organic chemistry

alkanes, carboxylic acids, alkenes, alkynes, chemistry of benzene, esters, alcohols, aldehydes, ketones, cycloalkanes, alkyl halides

Organic chemistry

Isomerism, nomenclature, polymers (includes proteins), conformations, carbohydrates

Intermolecular Forces and Physical Properties

Chemical Equilibrium

Acid-Base Equilibria

Acid-Base Properties of Salts

Titrations

Amino acids

Hybridization model

MO Model

Chemical bonds

Stoichiometry

Redox Reactions