Chemistry

CHEM 121 General Chemistry (5 credit, 4 lecture, 3 lab)

IAI P1 902L, CHM 911

Topics include: periodic table of elements, bonding, atomic structure, stoichiometry, thermochemistry, gases, solutions chemistry, condensed phases, phase transitions, fundamental particles and waves, modern materials. Laboratory required. **Pre-Requisite:** One year of high school chemistry

CHEM 122 General Chemistry & Qualitative Analysis II (5 credit, 4 lecture, 3 lab)

IAI CHM 912

Topics Include: colligative properties, kinetics, equilibrium, acid-base chemistry, electrochemistry, redox reactions, thermodynamics, coordination compounds, nuclear chemistry, spectroscopy, environmental chemistry. Laboratory required. **Pre-Requisite:** CHEM 121

CHEM 123 Basic Inorganic/Organic Chemistry (4 credit, 3 lecture, 2 lab)

IAI P1 902L

Topics include: the general principles and theories of chemistry, including fundamentals of inorganic chemistry, atomic structure, states of matter, periodicity, bonding, stoichiometry, solution chemistry, acid/base concepts, and hydrocarbon chemistry. Laboratory required. **Pre-Requisite:** MATH 109

CHEM 124 Basic/Organic/Biological Chemistry (4 credit, 3 lecture, 2 lab)

Topics include: fundamental principals of organic chemistry and biochemistry, including study of structure, bonding, nomenclature, physical and chemical properties of organic and biologically significant compounds; also study of metabolic and biosynthetic pathways. Laboratory required. **Pre-Requisite:** CHEM 121 or CHEM 123.

CHEM 241 Organic Chemistry I (5 credit, 3 lecture, 4 lab)

IAI CHM 913

Topics include: alkanes, cycloalkanes, alkenes and alkynes, organohalogens, organometallic compounds, peroxides, alcohols, phenols, ethers, sulfur compounds, and aromatic compound; study of organic reactions, nomenclature, bonding and physical properties. Laboratory required. **Pre-Requisite:** CHEM 122

CHEM 242 Organic Chemistry II (5 credit, 3 lecture, 4 lab)

IAI CHM 914

Topics include: aldehydes, ketones, carboxylic acids and derivatives, dicarbonyl compounds, amines, heterocyclic compounds, polycyclic aromatic compounds, and biological classes of compounds, organic reactions and physical properties; spectroscopic study of organic compounds. Laboratory included. **Pre-Requisite:** CHEM 241.