CHEMISTRY 11 For all second year and AP level students. 25 multiple choice questions per exam.

JANUARY: matter and measurement, atomic theory (sub-atomic particles, atomic masses), spectroscopy (Beer's Law) chemical formulas, chemical equations (precipitation reactions, ionic equations, solubility, acid-base reactions, gas forming reactions, oxidation reduction reactions, balancing redox reactions by oxidation state method, activity series, mole relationships, mass-mass problems, stoichiometry of redox solutions, solutions stoichiometry, electronic structure and periodic table/periodicity.

FEBRUARY: chemical bonding, photon-electron spectroscopy, doping and semiconductors, given molecular orbital diagram determine bond order, paramagnetism, and diamagnetism, electronegativity, Lewis structures, molecular geometry, polarity of molecules, hybridization(sp, sp^2, sp^3), liquids, solids, vapor pressure, intermolecular forces, thermo chemistry (enthalpy, Hess's Law, heats of formation, bond energies, calorimetry), phase changes, gases, plus January topics.

MARCH: non-metals, metals(not unit cells), solutions, rates of reactions, reaction mechanisms, descriptive chemistry of the elements, plus Jan and Feb topics.

APRIL: chemical equilibrium, acids, bases, and salts, K_a, K_b, K_{sp}, buffers, redox, voltaic cells, D*S*, D*H*, D*G*, descriptive chemistry of the elements, plus Jan, Feb., and Mar topics.