COLLEGE OF CHEMISTRY COURSE GUIDE (../INDEX.HTML)

CHEM 4B - GENERAL CHEMISTRY AND QUANTITATIVE ANALYSIS (_ UNITS)

COURSE OVERVIEW

(Taken from the UC Berkeley Course Guide (http://guide.berkeley.edu))

SUMMARY

Series is intended for majors in physical, biological sciences, and engineering. It presents the foundation principles of chemistry, including stoichiometry, ideal and real gases, acid-base and solubility equilibria, oxidation-reduction reactions, thermochemistry, entropy, nuclear chemistry and radioactivity, the atoms and elements, the periodic table, quantum theory, chemical bonding, molecular structure, chemical kinetics, and descriptive chemistry. Examples and applications will be drawn from diverse areas of interest such as atmospheric, environmental, materials, polymer and computational chemistry, and biochemistry. Laboratory emphasizes quantitative work. Equivalent to 1A-1B plus 15 as prerequisite for further courses in chemistry.

PREREQUISITES

High school chemistry; calculus (may be taken concurrently); high school physics is recommended

WORKLOAD

TIME COMMITMENT

3 hours of lecture, 4 hours of laboratory, and 0 hours of voluntary per week.

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