General Chemistry for Science Majors II, with Lab
TCSU CHEM 120

A. Description
This is the second semester of a one-year course in chemistry intended for majors in the
natural sciences (chemistry, biochemistry, biology, physics, pre-medicine), mathematics,
and engineering.

B. Recommended Preparation
None specified

C. Prerequisites
None specified

D. Minimum Unit Requirement
5 units, including at least 1 unit of laboratory and 1 additional unit of
laboratory/recitation (at least 38 hours of lecture and 38 hours of laboratory)

E. Course Topics
This course will consist of half of the content listed under CHEM SEQ A.
The complete one-year course will present fundamental principles and concepts of
chemistry including, but not limited to atomic structure, quantum theory, periodic
properties, chemical reactions, stoichiometry, gas laws and theories, molecular structure
and bonding, states of matter, solutions, acids and bases, chemical equilibrium,
thermodynamics, oxidation-reduction, electro-chemistry and chemical kinetics, nuclear
chemistry, organic chemistry, descriptive chemistry, and coordination chemistry. The
laboratory sequence will support the above topics including both qualitative and
quantitative experiments, analysis of data and error propagation.
It is strongly recommended that TCSU CHEM 110 and 120 (TCSU CHEM SEQ A) be
completed at a single institution before transfer.

F. Student Learning Outcomes
The American Chemical Society (ACS) General Chemistry Guide and the General
Chemistry examinations provide information on topics and indicate an appropriate level
of this sequence of courses, including learning goals and objectives.

G. CAN Equivalent
CAN CHEM 4 (Equivalency ends Fall 2009)