

Introductory Chemistry

Chemistry 110

Section: D100

Term: 2000 Summer

Instructor: Dr. J. Lowe. Office: C-9037.

Chem 110/111.

Discussion Topics: General Course Description:

General fundamental concepts and nomenclature; stoichiometry and chemical calculations; nuclear and atomic structures, the periodic table, the chemical bond; the properties of gases, liquids, solids and solutions; chemical kinetics and chemical equilibrium. This course has the same lecture component as Chem 111 but no laboratory work.

3 lecture hours/week; 1 hour/week tutorial; 0 hours/week laboratory.

Topics:

2 Lectures: Matter, elements, compounds

1 Lecture: Units, measurements, Significant Figures

2 Lectures: Atoms, subatomic particles

3 Lectures: Electronic structure, the Periodic Table

3 Lectures: Ionic and Covalent Bonding

1 Lecture: Chemical Nomenclature

Midterm

3 Lectures: The mole, Chemical Formula Reactions and Equations

2 Lectures: Solutions, concentration and molarity

3 Lectures: Stoichiometry

3 Lectures: Gas Laws

Midterm

3 Lectures: Acids and Bases

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3 Lectures: Oxidation and Reduction

3 Lectures: Equilibrium

Grading: 2 Mid-Term Exams 40%; Final Exam 50%; Tutorial assignments 10%.

Required Texts: Stoker, "Introduction to Chemical Principles", 6th Ed. 1999, Prentice Hall.

Recommended Texts: None

Materials/Supplies: None

Prerequisite/Corequisite: Prerequisite: B.C. High School Math 12(or equiv.)(or Math 100, corequisite) or permission of the department. No previous training in chemistry is required for this course. Students with credit for high school Chem 12(or equiv.) or any university c

Notes: Students who have successfully completed B.C. High School Chem 12 (or equivalent) normally start with CHEM 121.

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