

## Introductory Chemistry

Chemistry 110

Section: D100

Term: 2005 Fall

Instructor: Lecturer: G. J. Keizer. Office: C8021 Phone: 604-291-5416 Email: gkeizer@sfu.ca

Discussion Topics: 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 hours/week lecture; 1 hour/week tutorial; 0 hours/week laboratory.

Lectures

Topics

1 Units, measurements, Significant Figures

3 Basic concepts; Matter, Atoms, Nucleus

3 Electronic structure, the Periodic Table

1 Chemical Nomenclature

Midterm I

3 The Mole, Chemical Formula Reactions and Equations

3 Stoichiometry

1 States of Matter and Energy

3 Gas Laws

2 Solutions, concentration and molarity

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### Midterm II

3 Ionic and Covalent Bonding

3 Reaction Rates and Chemical Equilibrium

3 Acids and Bases

3 Oxidation and Reduction

Grading: Problem Sets 10%; 2 Mid-Term Exams 40%; Final Exam 50%.

Required Texts: Stoker, "Introduction to Chemical Principles", 8th Ed. 2005, Prentice Hall.

Recommended Texts: None

Materials/Supplies: None

Prerequisite/Corequisite: 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 chemistry course may n

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

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