

PREPARATION FOR COLLEGE CHEMISTRY S0001D

Professor Luis Avila
Room 455 Chandler
Phone: (212) 854-8587

Email: <avila@chem.columbia.edu>

Office hours Friday 3:00 - 4:00 P.M. and by appointment.

Lecture : Monday - Tuesday 6:00 - 8:30 P.M.
Thursday 6:00 - 7:20 P.M.

Room: Brian Bent Lecture Hall. 209 Havemeyer Hall

The required Course Text is M. Hein and S. Arena, *Foundations of College Chemistry*, 7th Alternate ed. Brooks/Cole Publishing Co, New York 2000. It is available in the bookstore and additional copies will be placed on reserve in the Chemistry Department Library on the 4th Floor Chandler Hall.

Homework Assignments will typically consist of 12 - 18 questions and problems. You are to hand in 5 problems as indicated on the homework assignment sheet. These assignments will be graded and count as your total homework score.

Reading Assignments: You are responsible for Chapters 1 and 13, which will not be covered in class: Assignments related to Interactive Demonstrations activities will be announced in class.

Course Schedule-Approximate dates:

| WEEK | DATE MONDAY- TUESDAY THURSDAY | READING MATERIAL | ACTIVITIES/TOPIC |
|------|---|--|---|
| 1 | MD - 5/28 - 5/30 5/31 Friday (6:00 - 8:30 P.M.) | Chapter 1 and 2 Chapter 3, 4 and 5 | Course Introduction / Measurement. Matter Classification. Properties of Matter. Early Atomic Theory and Structure |
| 2 | 6/03 - 6/04 6/06 | Chapter 5 and 6 Chapter 7 and 8 | Early Atomic Theory and Structure. Nomenclature Quantitative Composition of Compounds. Chemical Equations. Oxidation-Reduction. |
| 3 | 6/10 - 6/11 6/13 | Chapter 8 and 17 Chapter 17 | Oxidation-Reduction. Stoichiometry MIDTERM |
| 4 | 6/17 - 6/18 6/20 | Chapter 9 and 10 | Modern Atomic Theory and The Periodic Table. The Chemical Bond. Lewis Structures. |
| 5 | 6/24 - 6/25 6/27 | Chapter 11 and 12 Chapter 13 and 14 | Gas Laws. Liquid State and Solutions. Chemical Equilibrium. Acid and Bases |
| 6 | 7/01 - 7/02 | Chapter 15 and 16 | Chemical Equilibrium. Acid and Bases |
| 6 | 7/05 | | FINAL EXAM |

Examinations: Two period examinations will be held.

Midterm Thursday June 13
Final Friday July 5

The midterm covers the first half of the term. The final examination covers the second half of the term

Grading: Your grade will be based on the following:

| | |
|--------------------------|-----|
| Midterm | 30% |
| Final | 30% |
| Homework and Assignments | 40% |

Eight best (of ten) homework assignments count toward the 40%.