CHEM 1B
General Chemistry

San Joaquin Delta College – Spring 2004
The Instructor reserves the right to alter or amend this syllabus to meet instructional goals.

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Phone: (209) 954-5343
Office Hours: MWF 7:00 am to 8:00 am
TTh 1:00 pm to 2:00 pm
Lecture Room: Cunningham 416
MWF 11:00 am to 12:00 pm
Lab Room: Cunningham 305
TTh 7:00 am to 10:00 am (14993)
TTh 10:00 am to 1:00 pm (78542)
Website: http://www.deltacollege.edu/emp/ckim

Prerequisites: Reading Level Two, Chemistry 1A with a grade of “C” or better.

College Statement: This course is a technical introduction to chemistry designed for the student intending to major in chemistry, medicine, dentistry, pharmacy, etc., each of which require a rigorous understanding of understanding of the fundamental principles of chemistry. The laboratory includes semi-micro qualitative analysis in the second semester.

General Aims: Upon successful completion of this course, the student will be able to demonstrate an understanding of basic chemical concepts in the area of equilibrium, acid/base, electrochemistry, coordination compounds, thermodynamics, and techniques in quantitative determinations in volumetric and gravimetric areas.

Specific Objectives: Upon successful completion of this course, the student will be able to:
1. Demonstrate the ability to use the factor method in problem solving related to stoichiometry.
2. Demonstrate the ability to construct and interpret a graph.
3. Demonstrate an understanding of reaction equilibrium and kinetics.
4. Demonstrate ability to solve solubility product problems.
5. Demonstrate an understanding of the acid-base concept and its relation to pH.
6. Demonstrate the ability to solve acid-base problems relating to filtration.
7. Demonstrate a knowledge of solution concentration including molarity, weight % and normality.
8. Demonstrate an understanding of the nomenclature of coordination compounds.
9. Demonstrate the ability to use concepts of electrochemistry to complete electrochemistry laboratory exercise for cells.
10. Demonstrate knowledge of the three laws of thermodynamics and related thermodynamic principles.
11. Demonstrate an understanding of laboratory safety and the ability to perform laboratory experiments assigned.
Materials

**Required Materials:**
- *Chemistry* by Zumdahl & Zumdahl, current edition
- *Chemical Principles in the Laboratory* by Slowinski, Wolsey, & Masteron, current edition
- Scientific Calculator (Storage calculators will NOT be allowed during quizzes or exams.)
- Periodic Table (printable version from http://www.webelements.com)
- **Laboratory notebook**: bound with carbon copies possible and pages numbered.
- Lab Goggles
- Lock

**Grading**

The four hourly exams will be worth 100 points each. The ACS comprehensive (both semesters) final exam will be worth 200 points.

<table>
<thead>
<tr>
<th>Exam</th>
<th>Textbook Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12, 13</td>
</tr>
<tr>
<td>2</td>
<td>14, 15</td>
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<tr>
<td>3</td>
<td>16, 17</td>
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<tr>
<td>4</td>
<td>18, 21</td>
</tr>
<tr>
<td>Final</td>
<td>ACS (All Chapters)</td>
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</tbody>
</table>

Quizzes will be worth 10 points each. Approximately 12 quizzes will be given. The two lowest quizzes will be dropped giving a total of 100 quiz points.

There will be approximately **11 laboratory exercises** will be performed. Each lab will be worth 20 point each. A 50-point lab exam will be given.

APPROXIMATE point breakdown (subject to change):

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>400</td>
<td>(~41.2% of your grade)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>200</td>
<td>(~20.6% of your grade)</td>
</tr>
<tr>
<td>Quizzes</td>
<td>100</td>
<td>(~10.3% of your grade)</td>
</tr>
<tr>
<td>Lab Exercises</td>
<td>220</td>
<td>(~22.7% of your grade)</td>
</tr>
<tr>
<td>Lab Exam</td>
<td>50</td>
<td>(~5.2% of your grade)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>970</strong></td>
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Grade assignments will be made based on the following scale:

- **A** = 90.0 % - 100 %
- **B** = 78.0 % - 89.9 %
- **C** = 65.0 % - 77.9 %
- **D** = 50.0 % - 64.9 %
- **F** = 0 % - 49.9 %
CLASSROOM and LABORATORY expectations:

• All students are expected to RESPECT themselves, one another, the instructor, the room, and the equipment. In turn, I will respect students and their academic needs and progress.

• REGULAR ATTENDANCE to lecture and laboratory periods is expected. Time lost to tardiness to lab, quizzes, or exams cannot be made up. Other classes are scheduled into our lab and lecture rooms immediately after our class ends. Exams, quizzes, and lab exercises may not be made-up. If an unavoidable conflict exists, for example a death in the family, arrangements may be made. Keep in touch with me if a problem arises. Use email or use the phone!

• ACADEMIC INTEGRITY: Cheating or academic dishonesty of any kind will not be tolerated! The FIRST offense will result in the most severe consequences as outlined in the Student Handbook. The FIRST offense will result in a grade of zero on the item in question (will NOT be dropped). The SECOND offense will result in course failure. Please see the Student Handbook or Course Catalog for the college's definition of academic dishonesty and its consequences. Please be aware that I may be implementing a new system to deter cheating.

• SAFETY: All students are expected to abide by the safety rules in the laboratory. Contact lens are not to be worn in lab. Note that safety glasses or goggles are required at all times in the laboratory.

• Special Needs
  If you have any special needs for accessibility or any other issues (ex: asthma or pregnancy) please discuss with me so that appropriate accommodations may be made.

• Please SILENCE mobile phones and pagers before entering the lab or classroom.

• Other important dates:  Last drop date without a W: 2/6/2004
  Last drop date with a W: 4/22/2004

  IT IS THE STUDENT’S RESPONSIBILITY TO DROP THE CLASS