BOOKS/SUPPLIES/COURSES
1) Levine’s Physical Chemistry – 5th or 6th edition – Solution book can also be very helpful.
2) Non programmable calculator
3) Useful – a Gen Chem book and other PChem textbooks

DESCRIPTION/PREREQUISITES
Principles of classical physical chemistry. Chemical thermodynamics, kinetics and electrochemistry.
Prerequisite: CHEM 55 (or CHEM 1B and upper division standing for engineering majors), PHYS 70/50 and MATH 32
(with grades of "C" or better; "C-" not accepted)

BS/BA CHEMISTRY PROGRAM LEARNING OUTCOMES ADDRESSED BY Chem 161A
PLO #4 Demonstrate understanding of core concepts and to effectively solve problems in physical chemistry.

COURSE LEARNING OUTCOMES FOR Chem 161A
CLO #1 Students will explain and apply the concepts of classical thermodynamics, kinetics and electrochemistry to chemical and physical systems.
CLO #2 Students will be able to derive essential mathematical relationships in classical thermodynamics, kinetics and electrochemistry.
CLO #3 Students will apply essential mathematical relationships to chemical and physical problems, including chemical reactions and phase equilibria
CLO #4 Students will evaluate physical and chemical systems to determine how to control these systems.

EXAM SCHEDULE
Exam I – Feb. 20
Exam II – Apr. 3
Exam III – May 6
Final – May 15, 9:45 AM

GRADING
Chem 1A/B Review assignment 6 %
3 lecture exams 60 %
Final 28 %
Participation 6 %

100% – 88.0 % - A+ to A-
87.9% - 76.0% - B+ to B-
75.9% - 60.0% - C+ to C-
59.9% – 50.0% - D+ to D-
below 50.0 % - F

Incompletes will not be given unless a strong compelling reason with proof is furnished to support the need for an incomplete. Incompletes will not be granted just because the university won’t late drop you or because the low grade will disqualify you, put you on probation or increase your car insurance payment! Incompletes do not remove past scores in exams! Incompletes are removed by completing pending tasks. I do not provide special projects to make up incompletes.

PARTICIPATION
Beginning of class - One student selected at random student will be asked to do a two minute review of what was discussed in the last lecture.
Last part of class – One student per problem will be randomly asked to come write out the solution on the board and mention quickly how the problem was solved.
You can turn down your presentation but you go to the bottom of the list and won’t get another chance for quite sometime to earn your 6%. To get the 6% you must participate twice.

MISCONDUCT

While taking exams or quizzes, the student should keep his/her eyes down on his/her own paper. No whispering or talking is allowed. You are not allowed to share a calculator or periodic table during exams or quizzes. If your calculator fails inform the instructor. You may not use your cell phone or PDA as a calculator; these should be stored in your backpack or on the floor beneath your seat. You may not answer the phone during a test. You cannot have headphones/earphones in your ears irrelevant of what you are listening to. All printed or written material (notebooks, textbooks, etc.) should be placed under the seat, left outside the room or placed near the lecturer’s table, at the front of the room. Failure to comply will cause the instructor to pick up the exam and give a grade of F for the exam and/or course. Willful solicitation, procurement or conveyance of exams/quizzes/unknowns will also result in failure of the course. The instructor can and will bring the person caught cheating to the attention of the university committee in charge of student misconduct.

EMERGENCIES/EVACUATIONS

If you hear a continuously sounding alarm, or are told to evacuate by Emergency Coordinators (colored badge identities), walk quickly to the nearest stairway (end of each hall). Take your personal belongings with you as you may not be immediately allowed to return. Follow instructions of Coordinators. Be quiet so you can hear. Once outside, move away from the building. Do not return to the building unless the Police or Coordinators announce that it is permissible. If an alarm should occur during an exam or quiz, please attempt to give your instructor the paper.

MISCELLANEOUS

1) Each exam in lecture will require that you sign a statement indicating that you have behaved in an honorable manner while taking the exam. The statement will also indicate that you are not aware of any other classmate cheating, etc. during the course of the exam. If you feel that you are unable to sign such a pledge, talk to me.

2) If a fire alarm were to interrupt an exam please do the following: Leave the room via the door closest to the instructor and give the instructor your quiz or exam. Provide assistance to any disabled students. Take your books with you since there is some chance you might need to go to your next class before you are allowed in the room.

3) Any student with a disability requiring special testing conditions must show the necessary documentation from the university to the instructor within the first two weeks of class.

4) Campus Policy in Compliance with the American Disabilities Act: If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the Disability Resource Center to establish a record of disability.

5) Academic Integrity Statement: Your own commitment to learning, as evidenced by your enrollment at San Jose State University, and the University’s Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infraction to the Office of Student Conduct and Ethical development. The policy on academic integrity can be found at http://sa.sjsu.edu/student_conduct

6) For downloadable graphing paper if you want to draw it the graph by hand you can visit http://incompetech.com/graphpaper-lite/

OFFICE HOURS

TBD - Subject to change if my teaching responsibilities change after the printing of this greensheet. From Aug. 26 to Sept 2, I will be in and out of my office due to management of enrollment for 1A/1B/Sci 1 and I will attempt to honor the office hours but it might be difficult.

My office is located in the basement level of Duncan Hall (Room 16, only two of the elevators make it down to the basement!). Please be efficient and organized when you come to ask questions during office hours. I might have to limit the amount of time I spend with you if there are several students waiting. On occasions I will have to cancel office hours due to medical appointments or important committee meetings.

Syllabus for Chem. 161A
<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Ideal and real gases</td>
<td>All of 1 and most of 8</td>
</tr>
<tr>
<td>2) q, w, H, U, 1st Law</td>
<td>2</td>
</tr>
<tr>
<td>3) Thermochem</td>
<td>5.1-5.5</td>
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<tr>
<td>4) 2nd Law, S, 3rd Law, G, A</td>
<td>3 and 4, 5.6, 5.7</td>
</tr>
<tr>
<td>5) Equilibrium</td>
<td>6</td>
</tr>
<tr>
<td>6) One component Phase Diagrams</td>
<td>7</td>
</tr>
<tr>
<td>7) Solutions</td>
<td>9, some of 10 and some of 11</td>
</tr>
<tr>
<td>8) Two comp phase diagrams, colligative</td>
<td>12</td>
</tr>
<tr>
<td>9) Kinetics</td>
<td>17</td>
</tr>
<tr>
<td>10) Electrochem</td>
<td>14</td>
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</tbody>
</table>