GENERAL CHEMISTRY, CHEM-1C, SUMMER 2016
INSTRUCTOR: DR. RAM SUBRAMANIAM

Instructor Contact Information

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Class Meeting

Lecture/Lab: SC 2208
Lecture/Lab time: MTWTh 3:00 to 7:15 p.m.

Textbook

Lecture- Chemistry - The Molecular Nature of Matter & Change, Silberberg, M., 6th or 7th edition, McGraw Hill
Lab- http://deanza.edu/chemistry/Chem1C.html

Course Content

General Chemistry at De Anza College is presented as a three-part class. This is the third and final quarter in the yearlong General Chemistry sequence. The class will begin with a discussion of colligative properties and other aspects of solutions. In this class, advanced equilibrium concepts pertaining to solubility and buffers will be discussed. This will be followed with an introduction to electrochemistry, the chemistry of transition metals, and nuclear chemistry.

Student Learning Outcomes

1. Apply the principles of equilibrium and thermodynamics to electrochemical systems.
2. Apply the principles of transition metal chemistry to predict outcomes of chemical reactions and physical properties.
3. Evaluate isotopic decay pathways.
4. Demonstrate a knowledge of intermolecular forces.

Academic Integrity

All graded assignments must be completed without any consultation (people, books, internet) unless otherwise permitted by the instructor. Any student that violates this policy will receive a failing grade (F) in the class and reported to appropriate administrative authorities such as the Dean. Please refer to the Student Handbook for detailed information: http://www.deanza.edu/studenthandbook/academic-integrity.html

Attendance Policy

Failure to attend any of the lectures or laboratory classes during the first two weeks will result in you being dropped from the class. You are expected to attend all lecture and laboratory classes. Strong evidences exist that indicate that student success is directly related to class participation. You will be given an "F" grade for unexcused absences in TWO or more lecture and/or laboratory periods.

Excused Absence: If you know in advance that you will need to miss a class, please notify the instructor and provide proof of the excuse. If you have already missed a class, please follow up with the instructor as soon as possible and provide a proof of a valid excuse. Valid excuses are: birth/death in the family, work-related travel, illness/medical emergencies, conference travels, jury duty, accidents, legal issues, or traveling to represent De Anza College at meetings/other events. Other excuses will be considered on a case-by-case basis. Please note that verifiable documented proof of the excuse is essential in order to grant a make-up.

Cell Phone Policy

Use of cell phones is strictly prohibited during class. There is to be no text messaging, browsing the Internet, or voice conversations. Violation of this policy will bar you from attending office hours and may result in failure in the class.

Evaluation

The lecture portion of the class is weighted at 75% and the laboratory portion is 25%. You must complete all the lab experiments and pass the lab in order to pass the class. The evaluation for the laboratory part will consist of lab reports, lab exams, attendance, and notebook.

Lecture Schedule

The following is a tentative schedule for the lecture portion of the class. It is highly recommended that you read the relevant sections in the book prior to the lecture. Periodically, the instructor may assign certain sections of the book to be read on your own and these will not be covered in the lecture. You will receive appropriate instruction for such readings during the lecture. Some laboratory periods may be used for lectures.

Week	Dates	Topic	Chapter
1	June 27	Buffers and Solubility	19
1	June 28	Buffers and Solubility	19
1	June 29	Buffers and Solubility	19
1	**June 30**	**Exam 1**	**19**
2	*July 4*	*No class*	
2	July 5	Buffers and Solubility	19
2	*July 6*	*No class*	
2	**July 7**	**Exam 2**	**19**
3	July 11	Solutions	13
3	July 12	Solutions	13
3	July 13	Solutions	13
3	**July 14**	**Exam 3**	**13**
4	July 18	Electrochemistry	21
4	July 19	Electrochemistry	21
4	July 20	Electrochemistry	21
4	**July 21**	**Exam 4**	**21**
5	July 25	Transition Metals	23
5	July 26	Transition Metals	23
5	July 27	Transition Metals	23
5	**July 28**	**Exam 5**	**23**
6	August 1	Nuclear Chemistry	24
6	August 2	Nuclear Chemistry	24
6	August 3	Nuclear Chemistry	24
6	**August 4**	**Final Exam**	**19, 24**

Important Dates

Date	Activity
April 16	Last day to add quarter-length classes
April 17	Last day to drop for a full refund or credit
April 17	Last day to drop a class with no record of grade
May 27	Last day to drop with a "W."

Grading

Lecture: 750 points	
Exams	5 × 100 = 500 points
Homework	5 × 20 = 100 points
Final Exam	1 × 150 = 100 points

Lab: 250 points	
Lab report	5 × 10 = 50 points
Pre-Lab	5 × 5 = 25 points
Cations (PL)	1 × 25 = 25 points
Cations	1 × 50 = 50 points
Lab exam	1 × 100 = 100 points

Grading Scale

In order to obtain the final letter grade for the class, your total lecture score will be added to your lab score and a percentage score will be computed based on the total. This percentage score will be rounded to the nearest whole number and a letter grade will be assigned as per the following table. Grades will not be based on a curve. Please note that regardless of your overall score, if you do not complete all the lab assignments you will receive an F grade in the class.

Percentage points	***Grade***
97-100	A+
92-96	A
88-91	A-
85-87	B+
82-85	B
78-81	B-
74-77	C+
70-73	C
66-69	D+
60-65	D-
0-59	F

Other Options

Pass/No Pass: A grade of "C" or higher is considered "Pass" in the course and lower than "D+" is considered "No Pass" in the course.

Audit: If you do not need any credit for this course, you may elect to audit the course.

Note: You are not permitted to attend this class if you are not officially registered.

Lab

The following is a schedule of experiments that will be performed this quarter. Prior to start of a particular lab, you must complete the pre-lab exercise and must have read the lab manual completely. Failure to comply may result in not being able to complete the lab experiment at the assigned time.

Date	**Topic**
June 27	Introduction and Check-in
June 28	Experiment C4: Buffers
June 29	Experiment C4: Buffers
June 30	Experiment C2: Common Ion
July 4	No lab
July 5	Experiment C2: Common Ion
July 6	No Lab
July 7	Experiment C1: Freezing Point
July 11	Experiment C1: Freezing Point
July 12	Experiment C5: Anions
July 13	Experiment C5: Anions
July 14	Experiment C3: Electrochemistry
July 18	Experiment C3: Electrochemistry
July 19	Experiment C6: Cations
July 20	Experiment C6: Cations
July 21	Experiment C6: Cations
July 25	Experiment C6: Cations
July 26	Experiment C6: Cations
July 27	Experiment C6: Cations
July 28	Experiment C6: Cations
August 1	Experiment C6: Cations
August 2	Lab Exam
August 3	Check out

Lab Notebook: You are required to maintain a detailed laboratory notebook. Pre-lab assignments and all data obtained in the lab must be carefully documented in your notebook. All entries in the lab notebook must be in PEN.

Pre-lab Assignment: Prior to coming to lab, you must complete a numbered outline of the procedure for the experiment that will be performed on the particular day. You must also enter a blank data table for the data to be obtained in the laboratory. Failure to complete the pre-lab assignment will result in no credit for that experiment. Additionally, you will not be permitted to be present in lab that day.

Lab report: Complete the calculations and data analysis sections for each experiment and submit them by the due date given below.

Lab Report Due Dates:

	Section 05	**Section 06**
Experiment C1	4/18	4/19
Experiment C2	4/25	4/26
Experiment C3	4/27	4/28
Experiment C4	5/9	5/10
Experiment C5	5/9	5/10
Experiment C6	6/8	6/9

Items to Purchase

1. Textbook: Silberberg 6th or 7th edition
2. Notebook for lecture notes
3. Laboratory notebook: http://www.amazon.com/Student-Lab-Notebook-Spiral-duplicate/dp/1930882742/ref=sr_1_6?ie=UTF8&qid=1441219297&sr=8-6&keywords=laboratory+notebook
4. Safety goggles: http://books.deanza.edu/MerchDetail.aspx?MerchID=1341936&num=4&start=49&end=60&type=1&CategoryName=GENERAL%20MDSE&CatID=5322&Name=GENERAL%20MDSE&Catalog=966
5. Scientific calculator