

Chemistry 1C Sec 02 Summer 20

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On-Line meeting on Zoom: MTWTh, 11:30 AM – 12:50 PM, June 29th to Aug 6th

Zoom code and password:

<https://cccconfer.zoom.us/j/9071890886?pwd=K01QeVNWaklGSWIJRHFjWGdSalRGUT09>

Password: Chem1CSu20

General:

Course Goal: Under the current restrictive conditions deliver a Chem 1C course with sufficient content so that those in the sciences can succeed academically – under safe conditions.

Chemistry 1C will focus on the following topics:

Chapter 13 Mixtures and Solutions

Chapter 19 Ionic Equilibria

Chapter 21 Electrochemistry

Chapter 23 Transition Metals and Coordination Compounds

Recommended approach to this on-line course:

- Canvas Some course information is on Canvas but at an early stage of development and therefore is of limited reliability and use. I will be relying on My Portal and De Anza email for communication and pdf based support materials.
- Textbook Silberberg, 8e. Read the recommended sections and work the in text example problems including the follow up example problems labeled A & B. For adequate mastery of the material insure that you can work these problems before looking at hints or the solutions. Any Silberberg edition will work for lecture but the homework assigned only relates to the 8th edition. If your copy is not the 8th then you should share a copy or obtain a pdf of the homework from a friend. (See homework – below)
- Lectures After reading the recommended text material watch the on-line lectures (a PDF of the slides will be provided for use with the lectures). Listen at your convenience (or not), your choice. The material is similar to the recommended text readings. Accessing Zoom videos is easy - see below:

Lecture	Chapter 13 Solution Related
T1 P1	Topic: Lecture material to be covered
	Copy & paste entire sign in code for Zoom lecture into browser and enter.

T1 P1 means Topic 1 and Part 1

You should also be able to solve the on slide questions (labeled as “Q” in red), they are similar to the text and homework and will be the main source for exam questions. There will be discussion sessions to answer questions related to the lectures and homework.

- Homework (HW) is from the text (Silberberg 8e). The homework shouldn't be difficult assuming you have read the text and studied the in-text examples. Your homework as a pdf or related format, e.g. Word, will be turned in on agreed upon dates (see calendar). Since the answers are provided in the back of the text, then at a minimum I will be looking for two things: (1) that you have at least attempted every problem and (2) that your work is coherent (i.e. I can follow it). Each homework set is worth 10 pts and the grading will be 0/2/6/10. Where:
 - 0 if not turned in
 - 2 if it looks like you just copied the answers from the back of the book
 - 6 if you actually "worked out" the problems (detailed steps) but provide little to no explanation or rationalization of your work
 - 10 if the problems are worked out and your associated comments demonstrate that you understand what you did and why.
- Laboratory Problems (LP) – As a replacement for a "live" laboratory we will do open ended problems related to practical lab and applied chemistry situations that would benefit from an experimental approach – just without the glassware. The class will be assigned the same problem and you are free to discuss the problem with each other. However, everyone is responsible for their own *independent* write up (meaning text and example or actual calculations).

These problems present an opportunity to demonstrate that you can break a problem down into simple steps and have the ability to provide a rational, reasonable and meaningful solution. Each Lab Problem varies so one general format won't work for all. Your report should be a rational, coherent, readable and an independently written description of your effort. Your report should include calculations or example calculations as necessary. Think of this as being more of a job situation than a classroom situation. Grading standards are similar to the HW as discussed above:

Grading: 25 pts – 0, 5, 15, 25 and XC 10 pts – 0, 2, 6, 10

- Exams – There will be 2 one hour exams. A mid-term covering the first two chapters and a final that will only cover the last two chapters. Exams will be discussed further at the appropriate time.
- Plagiarism - presenting someone else's work or idea as your own. This is becoming a common occurrence and it won't be ignored. If caught you will be given a "0" for the assignment and you will be further penalized the same number of points as the assignment. E.g. if the assignment is worth 25 points a score of -25 will be awarded for plagiarism.

Grading:

Exams (Mid-Term + Final) (2 x 100 pts)	200
Lab problems (4 x 25 pts)	100
Home Work (4 x 10 pts)	40
Total Points:	340

Extra Credit XC): Homework Instructor's Discretion
 Lab Problems Instructor's Discretion
 Grading: A (100-93%), B (92-80), C (79-65), D (64-55)

Quarter Calendar: Chem 1C Summer 20

Estimated project start and due dates* are indicated. "Due" meaning assignment received on the appropriate day by email in an suitable format.

Week of:	Monday	Tuesday	Wednesday	Thursday
June 28	Course Intro – Syllabus Start C13 & provide pdf of C13 support info. [#]		Discuss C13 Lab Prob + XC	C13 slide review & Q/A
July 5	Start C19 & provide pdf of C19 support info.		Discuss C19 Lab Prob + XC C13 HW due	C13 Lab Prob/XC due
July 12		C19 HW due	Wrap up & Exam 1 review C19 Lab Prob/XC due	Exam 1
July 19	Start C21 & provide pdf of C21 support info.		Discuss C21 Lab Prob + XC	
July 26	Start C23 & provide pdf of C32 support info.		Discuss C23 Lab Prob + XC C21 HW due	C21 Lab Prob/XC due
August 2		C23 HW Due	Wrap up & Exam 2 review C23 Lab Prob/XC due	Exam 2

* **Due Date** – An Exam is due immediately at the end of the exam time limit. Homework is due by midnight of its due date. There is a 20%/day late penalty on all assignments (HW, Lab Problems, Exams) assessed based on the email time stamp indicating when the assignment was received. Example, if an exam is due by 6:00 PM of a certain day then an email received more than 3 min. after 6 PM that day is considered one day late and the clock restarts at midnight for a second day late.

Support information means: Chapter Assignment page, Slides & Lab Probl

Student Learning Outcome(s):

*Apply the principles of equilibrium and thermodynamics to electrochemical systems.

*Apply the principles of transition metal chemistry to predict outcomes of chemical reactions and physical properties.

*Evaluate isotopic decay pathways.

*Demonstrate a knowledge of intermolecular forces.