Chemistry 1C Sec 61 & 62 Fall 20

Course times: Lecture: MW 4-5:15 PM Lab 61 & 62: MW 5:20-6:20 PM

Instructor: John Cihonski, e-mail: cihonskijohn@fhda.edu

Office Hours: After Lecture/Lab meeting for ~30 min

General:

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

Approach to this on-line course:

- *Canvas* – We *will not be relying on Canvas* in this course. We will be relying on Zoom, My Portal and De Anza email for communication and pdf support.

- *Textbook* Silberberg, 8e. Read the recommended sections and work the in text example problems including the example follow up problems labeled A & B. For adequate mastery of the material insure that you can work these problems without looking at hints or solutions. If your copy is not the 8th then you should share a copy or obtain a pdf of the homework from a friend who has an 8e. (See homework – below)

- *Lectures* After reading the recommended text material watch the on-line lectures (and take photos of the slides and worked examples for personal use if you find them useful). The material is similar to the text. Access to the Zoom videos is easy. See the example below:

Lecture	Chapter 13 Solution Related
T1 P1	Topic: Lecture material to be covered
	Sign in code for Zoom lecture – it can be more than one line long

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 they will be the main focus for the exams. Think of the lectures as being your 'Exam Study Guide." As a follow up to the on-line lectures we will periodically do open discussion sessions to answer questions related to the lectures and homework. Timing and frequency - to be determined.

- *Homework (HW)* is from the text (Silberberg 8e). The homework shouldn't be difficult assuming you have read the text, studied the in-text examples and did the lectures. Your homework will be submitted as a *handwritten* based pdf at select times for grading. *Typed copies of the homework will not be accepted.* Since most answers are provided in the back of the text I will be looking for three things: (1) at a minimum you attempt every problem, (2) that your work is legible and coherent (I can

read and follow it) and (3) that you *show your work* (justify/support your result) and *explain* your reasoning. Your homework will be graded as either *acceptable* or *unacceptable*. See extra credit, XC, below.

- *Laboratory Problems (LP)* – As a replacement for "live" laboratories 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.

  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. The LPs vary 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 from more of a job or internship perspective than a classroom situation. PL grading will be on a 0, 5, 15 or 25 pt basis.

- *Extra Credit (XC)* At Instructor discretion - for each Accepted HW assignment you are eligible for one 5 pt XC optional credit assignment. We will discuss the details later. Grading standards for XCs will be on a 0, 1, 3 or 5 pt basis. There will be 4 possible XCs – one per chapter - for a total of 20 pts or a maximum Final Grade enhancement of 6.7%. For example if you do 3 acceptable HWs and did all four XCs with scores of 5, 3, 5 and 1 then you would receive (3 Acceptable HW/4 total HW) x (5 + 3 + 5 + 1) = 10.5 pts for a 3.5% benefit.

- *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. Exam specifics will be discussed further at the appropriate time.

- Plagiarism - presenting someone else's work or idea as your own. This is a common occurrence and it won't be tolerated. 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 is worth*. 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 (Acceptable or Unacceptable)	--
Total Points:	300

Instructor Optional Extra Credit (XC):	
Possible XC for Acceptable Chapter HW	4 x 5 pts = 20 pts max

Grading: A (100-92%), B (91^{+}-80), C (79^{+}-65), D (64^{+}-55)

Quarter Calendar: Chem 1C Spring 20

Estimated project start and due dates are indicated. Due dates will be modified if necessary.

Week of:	Monday	Wednesday
Wk-1 Sept 20	Course Intro & Start C13 *Provide pdfs of the Syllabus and C13 Assignment Sheet (Lecture & HW), Lab(LP) & XC Problems*	General Daily Schedule: 4:00-5:15 PM Sec 61 & 62 – Lecture & Lab related discussions (modify time as needed) ~5 min break – Office hour
Wk-2 Sept 27	Discuss C13 LP + XC *Provide LP sample report*	Do C13 slide overview + Q&A
Wk-3 Oct 04	Start C19 *Provide C19 Assignment Sheet (Lecture & HW), Lab(LP) & XC Problems* **C13 HW due (see "email" info. below)**	**C13 LP & XC due**
Wk-4 Oct 11	Discuss C19 LP + XC	
Wk-5 Oct 18	**C19 HW due**	Do C19 slide overview + Q&A **C19 LP & XC due**
Wk-6 Oct 25	Wrap up & review for Exam 1	Grade check **Exam 1 (E1)** – will discuss specifics prior to exam
Wk-7 Nov 07	Start C21 *Provide C21 Assignment Sheet (Lecture & HW), Lab(LP) & XC Problems*	E1 Grade results + short Exam review
Wk-8 Nov 08	Discuss C21 LP + XC lab	**Holiday**
Wk-9 Nov 15	Start C23 *Provide C23 Assignment Sheet (Lecture & HW), Lab(LP) & XC Problems* **C21 HW due**	Do C21 slide overview + Q&A **C21 LP & XC due**
Wk-10 Nov 22	Discuss C23 LP + XC lab	
Wk-11 Nov 29	**C23 HW due**	C21 & C23 Slide Q&A/Exam 2 review **C23 LP & XC due**
Wk-12 Dec 06	Grade Check **Exam 2** – discuss specifics	After E2 is graded – provide E2 and final grade *on an individual basis*

Email addresses for HW, LP, Exam & XC submissions (Note: Section dependent):

Section 61 use: jcihonski@juno.com

Section 62 use: jlcihonski@juno.com

Use the correct email for document submission. The wrong address will be treated as being late – a penalty.

There is a 20%/day late penalty on all assignments (HW, LPs, Exams & XCs) assessed based on the email time they are received. Example, if an exam is due by 6 PM of a certain day then an email received after 6 PM that day is considered to be one day late and the clock restarts at midnight.

Student Learning Outcome(s):

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

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

*Evaluate isotopic decay pathways.

*Demonstrate a knowledge of intermolecular forces.