Chemistry 1A Syllabus-Winter2024

In-Person Hours:

Section 01 and 02 Lecture Monday/Wednesday: 12:30 PM- 1:45 PM Room S35

Section 01 Lab Monday/Wednesday: 8:30AM-11:20 AM Room: SC 2202

Section 02 Lab Monday/Wednesday: 2:30 PM-5:20 PM Room SC 2202

Instructor

Mr. Jimmy Li

Please contact me through email: lijimmy@fhda.edu for all course-related communications. You can generally expect a reply from me within 24 hours. If you send me a message over the weekend, you should expect to hear back from the following Monday.

Course Webpage

Canvas

*I will communicate with the class through the **Announcements** feature. Make sure you have e-mail alerts turned on to receive important class information.*

Office Hours

MW 1:45-2:30pm. S35
MW 5:20-5:50pm SC2202
Fridays 9:00-10:00 Zoom

Official Course Description

An introduction to the structure and reactivity of matter at the molecular level. Application of critical reasoning to modern chemical theory and structured numerical problem-solving. Development of molecular structure from rudimentary quantum mechanics, including an introduction to ionic and covalent bonding. Chemical problem solving involving both formula and reaction stoichiometry employing the unit analysis

method. An introduction to thermochemistry and a discussion of the first law of thermodynamics.

Course Information: This class is divided into two separate instructional periods: a lecture period (in-person) devoted to the primary course material and a lab period for conducting lab experiments (in-person on campus). One registration code automatically enrolls you in both periods. Everyone will have the same lecture period, but a different lab period depending on which code you used for enrolling. At De Anza College the lab and lecture cannot be taken as separate courses under any circumstances.

Required Materials: Chemistry 2e from OpenStax (https://openstax.org/details/books/chemistry) , ISBN 978-1947172-62-3. This is an OER text and is free to you. It has been incorporated into the weekly modules for this course, but you can also view the text with this link, download it as a pdf, or order a hard copy. The hard copy does cost $55, and can be purchased using the link in the Getting Started Module.

Silberberg text for general chemistry is optional.

A scientific calculator (not your cell phone or computer) that has at least log and exponential functions is required (~ $25). Graphing calculators are fine also, but not required.

Aktiv Chem Subscription ($26.00). This is the on-line system we will use to do Homework problems and quizzes.

A laboratory notebook(optional). I recommend this one from Amazon (https://www.amazon.com/National-Computation-NotebookInches-43648/dp/B00007LV4B/ref=sr_1_14?crid=6YE4P3POQ31K&keywords=laboratory%2Bnotebook&qid=1663703554&sprefix=laboratory%2Bnote 14&th=1) .

Laboratory Safety Goggles ($25.99). These must be purchased from the De Azna bookstore to meet specifications required for chemical safety (Indirect Vent, Z87). Here is a link (https://www.bkstr.com/deanzastore/product/uvex-stealth-goggles-gray-gray-802632-1) to the goggles.

CDC approved face masks for both lecture and lab are optional. The college is no longer supplying masks for personal use, but we will be wearing them during lab and lecture. Any device that will allow you to browse the web and take photos, preferably a tablet or computer. Google Chrome or Firefox Web https://deanza.instructure.com/courses/31318/assignments/syllabus 3/7 Any App that will allow you to convert photos to pdf files. See the end of the syllabus. Genius Scan, CamScan, and Notes (Apple) are free, easy options.

Prerequisites

CHEM 25

(Links to an external site.)

or CHEM 30A

(Links to an external site.)

or satisfactory score on Chemistry Placement Test; MATH 114

(Links to an external site.)

or MATH 130

(Links to an external site.)

or equivalent.

Please review the official course outlines (linked above) for a list of essential topics.

Important Dates

- **Add Day** 1/20/24. Last day to *add*.
- **Drop Day** 1/21/24 Last day to *drop* the course with a refund *and* without a withdraw being recorded.
- **Withdraw** 3/1/24 Last day to *withdraw* from the course. A "*W*" will be recorded on your transcript.

Hours

The study of chemistry combines both macroscopic and microscopic views of the natural world with mathematical models to explain and predict phenomena. This is a 5-unit class, and ***I expect you to spend 2–3 hours a day on reading, lecture slides***

and class assignments. Set aside a time and place that you can work on class materials every day.

Attendance Policy

Your *punctual* attendance is expected at all lecture and laboratory sections of the course.

Late work will not be accepted under any circumstances. In the case of a documented emergency (e.g. covid test, hospitalization, court appearance, car crash), I may excuse you from that day's work. These instances will be handled and decided on a case-by-case basis.

Academic Integrity

Students are expected to adhere to the policy on academic integrity that is outlined in the De Anza College manual (https://www.deanza.edu/studenthandbook/academic-integrity.html). I expect all submitted work to represent your own understanding of the material and to be written in your own words. Cheating, copying, plagiarizing, etc. will not be tolerated, and the minimum consequence will be receiving a zero on that assignment and the incident will be reported to the Dean of Student Services. Cheating on a Quiz or other assessment will result in automatically failing the course. Examples of cheating include, but are not limited to: –Looking up answers for any assignment in Chegg, Course Hero, or any similar website. –Asking another person to take a quiz or exam for you, or taking a quiz or exam for another student. –Using unauthorized notes during an exam or quiz. –Copying another person's words without quotations or footnotes. –Using information that is not considered common knowledge without acknowledging the source.

Grading Breakdown and Expected Grade Scale

To succeed in this course, you will need to exhibit consistent and sustained effort throughout the quarter. Your final grade will be based on your final percentage out of the total points available.

Percentage in Class	Grade
97%	A+
92-96.9%	A
90 – 91.9%	A–
87 – 89.9 %	B+
82 – 86.7%	B
78 – 81.9%	B–
72 – 77.9%	C+
65 – 71.9%	C
60 – 64.9%	D+
50 – 59.9%	D
<50%	F

NOTE: Mr. Li reserves the right to alter the grade scale at any point in the quarter.

The points are broken down into weighted categories—note that not all points are equal weight! Each category is described below.

Aktiv Chem (HW + Quizzes) **15%**

Labs (pre-labs, lab reports, lab exam (3/20). 30%

Two midterms + one Final exam 55%

1 If you end the quarter with less than 50% in labs, you will receive a F for the class.

2 The weights of these assignment categories may change. For example, if there are repeat violations of the academic integrity policy in any category, this scale will be adjusted.

Registration, Attendance, and Conduct Policy: Registration:

Enrollment in each section is strictly limited to 30 students per section. Class spaces are filled in accordance with the official class roster from Admission and Records, followed by the official wait list. Any errors with registration or status must be addressed directly to Admission and Records.

Attendance: Both lecture and lab is IN PERSON. Attendance is expected during all lectures and all laboratory periods. Please see the lab section about specific information regarding lab attendance. Dropping the Course: If you choose to drop the course at any point during the quarter, it is your responsibility to withdraw from the course through MyPortal by the appropriate deadline. Conduct: Students are also expected to abide by the Academic Integrity policy as outlined in the De Anza College catalog at all times. Students caught cheating or plagiarizing on any assignment can be expelled from the course and receive a grade of “F.” If collusion between students to cheat can be demonstrated, each student will receive this same penalty.

Lecture Schedule, Homework Assignments, Quizzes Students should plan to read 1-1.5 chapters per week.

To do well on a Quiz or an Exam you should…

1. Read each chapter carefully before attending Lecture. Not every detail will be covered in lecture, but you are still expected to understand the whole chapter.

2. If you feel you have a particular concept down, it is not necessary to do every problem, but do Aktiv Chem each chapter HW problems before you attempt the Aktiv Chem Quiz.

. 3. DO NOT FALL BEHIND WITH THE READING OR HOMEWORK!! This is the number one mistake you can make. Concepts in chemistry are like building blocks. Initially, you learn one topic to build up to larger concepts

Material covered in lecture, in the assigned reading, and on Aktiv Chem problems will be on the exam. There are no provisions for make-up exams or labs. It is your responsibility to be up to date on the material covered by any missed exam or lab session. If you feel that any of your exams are graded incorrectly, you are always welcome to submit the exam for a complete re-grade at the end of the lecture or laboratory period on the day the exam is returned.

The date for the final exam is on 3/25/24. ALL EXAMS ARE IN-PERSON INCLUDING THE FINAL EXAM!! Laboratory Students are expected to attend all laboratory sessions in-person. If you have a medical emergency or some other emergency that prevents you from attending lab, you will be asked to supply written documentation in order for the absence to be excused. Be sure to contact the instructor as soon as possible if you miss a lab session. If you miss more than 4 lab periods due to Covid then you must either withdraw from the course (if it is before the withdraw deadline or request an extended withdraw) or receive an F in the course. If you miss 4 or more lab periods for any other reason (whether excused or unexcused), then you must either withdraw from the course or receive an automatic grade of F for the course. This is a lab course and lab attendance is required.

Any absences must have supporting written documentation or notices from Health Services, Police Reports, etc. Pre-Lab Assignments and Laboratory Reports: Laboratory experiments are conducted in-person on campus in lab twice a week. Students are expected to attend all lab sessions. Lab reports consist of formal reports and/or worksheets. All reports are turned in as pdf files through Canvas or in person. Details regarding the report format will be provided in lab. Prior to lab attendance students are required to complete at pre-lab assignment. Details regarding the pre-lab assignment format will be provided in lab. No make-up lab reports will be allowed or accepted. No make-up pre-lab allowed or accepted. You will also not be allowed to attend lab without the pre-lab assignment being completed. . Laboratory Exam will be given during your regularly assigned laboratory sessions at the end of the quarter. No early, late or make-up lab exams will be given and all lab exam scores will count toward your overall course grade.

Instructions for Converting Photos to pdf Files There are numerous apps that allow you to convert a photo to a pdf file easily. Some are free and some are not. Pdf files are what you will be uploading to Canvas for the pre-lab assignments and laboratory reports. You may choose any app that fits your budget and privacy level. As with any

App some collect information that you may or may not be willing to share. Examples of apps are Adobe Scan, Cam Scanner, GeniusScan etc. If you have an iPhone, the Notes App will allow you to create pdf files.

1. Launch the Notes App.

2. Tap the New Note button in the lower right.

3. Hit the photo icon.

4. Choose Scan Documents from the list of pop ups.

5. Line up the document you wish to scan in the view.

6. You'll see a yellow rectangle over the document, and if you hold your iPhone or iPad steady, it should take the photo automatically. If not, you can press the shutter button.

7. The scan will move down to the lower left; you can tap it to see how it came out, and then press Done or Retake at the top of the screen. To make a single multi-page document, just keep taking scans of additional pages. When you're done, press the Save button in the lower-right, which will show how many pages you've scanned.

8. You can then press the share button in the upper left corner and email the pdf file to yourself or choose the Save to File and upload the document to Canvas by using the Canvas App.

Study Tips

1. Complete the assigned reading before coming to class. Write down any vocabulary words that you do not understand as well as their definitions.
2. Take *handwritten* notes during class and review your notes regularly. Write down any questions you have and bring them to office hours or e-mail your instructor.
3. *Do a little bit every day*. After every lecture, review the reading assignment and complete in-chapter and end-of-chapter exercises.
4. Join a study group. Work on problem sets together. The best way to learn the material is to teach it to somebody else.
5. If you feel that you are a poor test-taken, *complete and turn in all assignments on time* in order to pass the class.
6. Take care of yourself! Stay well-rested and drink water.

Student Learning Outcome(s):

- Identify and explain trends in the periodic table.
- Construct balanced reaction equations and illustrate principles of stoichiometry.
- Apply the first law of thermodynamics to chemical reactions.

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M,W	01:45 PM	02:30 PM	In-Person	in person
F	09:00 AM	10:30 AM	Zoom	zoom