

Chemistry 1A, General Chemistry, Fall 2021

Instructor:

Dr. Cinzia Muzzi

Phone: 408-864-5790 (I only receive messages at this number)

Synchronous Zoom Hours:

Section 03Z and 04Z

Tuesday/Thursday Lecture: 11:30 AM- 12:45 PM

Section 03Z Lab

Tuesday/ Thursday: 9:30AM-10:20 AM

Section 04Z Lab

Tuesday/ Thursday: 2:30 PM-3:20 PM

Office Hours/How to Contact me:

Zoom Office Hour

TTh 10:30 PM-11:30 AM , 3:30 PM-4:30 PM

To join office hours please click on the Zoom button in the lefthand menu. There is a reoccurring meeting for Zoom Office Hours. You will be placed in a waiting room initially and then be admitted to office hours one at a time.

Email

Outside of Office Hours I generally am able to answer emails within 24 hours Monday-Friday between 8:00AM-5:00PM. Emails sometimes may take up to 48 hours for a response if you email on a Tuesday or Thursday where I am in on-line class most of the day. Please note that I may not answer email on the weekends depending on time and internet availability.

Always use the **In Box** in the lefthand tool bar to send emails. When you communicate through the **In Box** I am sure to see your email. Otherwise your email potentially could be lost in the +75 emails I receive per day at my general email address. If for some reason you need to email me outside of Canvas, my email address is muzzicinzia@fhda.edu

Course Information:

This class is divided into two separate instructional periods: a **lecture period** devoted to the primary course material and a **lab period** for conducting lab experiments (which we will be doing on-line this quarter!). 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: The Molecular Nature of Matter and Change, 9th edition* by *Martin Silberberg* (McGraw-Hill)
 - - Chapter and Appendices for Chem 1A Only (\$30) ISBN: 9781307600940 (Follow directions in the Getting Started Module)
 - Access to the Complete Text, 1 year access (\$90)
 - ISBN:1260477371 (obtained by signing in through the link below)
<https://connect.mheducation.com/class/c-muzzi-all-sections>
 - You can also look for a used text on Amazon or any other retailer. The 8th edition should be fine as well.
- **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.
- **Chem101 Subscription** (\$19.95). This is the on-line system we will use to do practice problems and exams.
- Any device that will allow you to browse the web and take photos, preferably a tablet or computer.
- Google Chrome or Firefox Web Browser
- 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.
- **HOL Chemistry kit.** This is provided to you by the college and is not available until 2 weeks after the quarter starts. **Please be aware that if you are an international student, you will have to work out expedited shipping and any International Customs paper work to have the kit delivered.**

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: Lecture and Lab will be provided via Zoom. Lecture and lab are offered synchronously, and attendance is expected during all lectures and all laboratory periods. While there are synchronous components to the course, most assignments will be asynchronous (meaning you can complete them off line by the given deadlines).

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.

Class Grade Format:

Grading and Exam Schedule (Exam dates are tentative):

- Lecture Exams (200 points) (The lowest exam score will be dropped) **400 pt**
- Final Exam **250 pt**
- Chem101 Quizzes (20 pt each) (lowest score will be dropped) **200 pt**
- Laboratory Reports (20 pt each)(Lowest score will be dropped) **180 pt**
- Lab Exam **70 pt**
- Total Possible Points : **1100 pt**

Grade Scale:

| <u>% of Total Points Possible</u> | <u>Grade</u> |
|-----------------------------------|--------------|
| 98-100 | A+ |
| 92-97 | A |
| 89 - 91 | A- |
| 85 - 88 | B + |
| 82 - 84 | B |
| 79 - 81 | B- |
| 75 - 78 | C + |
| 68 - 74 | C |
| 64 - 67 | D + |
| 61 - 63 | D |
| 58 - 60 | D- |
| less than 58% | F |

Dr. Muzzi reserves the right to change exam and quiz dates as well as modify the grade scale at any point during the quarter.

Lecture Schedule, Homework Assignments, Quizzes

Students should plan to read 2-2.5 chapters per week. Chem101 Quizzes will be assigned each week through an on-line platform. These quizzes are meant for you to do a self-assessment after you complete the **end-of-chapter odd** problems. The Chem101 Quizzes ARE NOT COMPREHENSIVE. This means that they do not cover every topic or type of calculation that we will cover on an exam. **To do well on a Quiz or an Exam you should...**

1.
 1. **Read** each chapter carefully before attending Zoom Lecture. Not every detail will be covered in lecture, but you are still expected to understand the whole chapter.
 2. Do the **red end-of-chapter problems** at the end of each chapter up to (but not including) the Comprehensive Problems section. If you feel you have a particular concept down, it is not necessary to do every red problem, but do practice the end-of-chapter red problems before you attempt the Chem101 Quiz. Solutions to the textbook problems are found in the Appendix.

1.
 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. If you are shaky on a topic early on, your whole foundation will be unstable. To avoid this, try to read ahead of the scheduled lecture topics and keep up with the homework.

Each Chem101 Quiz is worth 20 points and your lowest quiz score will be dropped. No late assignments will be accepted.

Lecture and Final Exams:

There are three lecture exams and one final exam. Material covered in lecture, in the assigned reading, end-of-chapter problems and on Chem101 Assignments will be on the exam. Each lecture exam is worth 200 points. **Only your top two lecture exam scores will count as part of your overall course grade. No early, late, or make-up exams will be given.**

The final exam is **cumulative** and is worth 250 points. The final exam is **not** one of the exam scores that may be dropped out of your overall course score. **No early, late, or make-up final exams will be given.**

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.**

Laboratory

Students are expected to attend **all** laboratory sessions. This is a synchronous portion of the course. During your assigned lab time we will discuss the theory behind the on-line simulation, video or HOL lab kit experiments. If lab

time allows, we will also try and perform the HOL experiments together via Zoom. Otherwise, these experiments can be completed asynchronously.

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.

Laboratory Reports:

Some reports will be worksheets completed after asynchronously viewing a video or simulation and turned in as pdf files using Canvas. Other reports will require the use of the **HOL Chemistry 1A Kit** and will be completed using the kit and the HOL platform where the procedure and related lab questions are located. This kit can be obtained from the De Anza Book Store. It is **free** of charge and will be available after the second week of class. Although each report requires a different amount of work/effort, they are all worth the same amount of points because the topics are all equally important.

Only your top nine 20-point lab reports will count as part of your overall course grade. No make-up lab reports will be allowed or accepted.

Laboratory Exam

There is one laboratory exam for this course worth 70 points. The 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.**

Tentative Lecture and Exam Schedule*

(*Be aware that Lecture exam and assignment dates may change depending on the timing of the material presented in lecture. The final exam date is set by the college and will not change.)

Week 1

9/21

- Lecture: Chapter 2 and Intro to Chem 101
- Lab: Introduction to Lab, Significant Figures and Measurement (Chapter 1 Review)

9/23

- Lecture: Chapter 2
- Lab: Graphical Analysis (Chapter 1 Review) (report 1)
- Chem101 Quiz 1 due Sunday

Week 2

9/28

- Lecture: Chapter 3
- Lab: Nomenclature (report 2)

9/30

- Lecture: Chapter 3
- Lab: Nomenclature (report 2)
- Chem101 Quiz 2 due Sunday

Week 3

10/5

- Lecture: Chapter 3 **ORDER YOUR HOL KIT 4/19**
- Lab: Conductivity/ Types of Reactions (report 3)

10/7

- Lecture: Chapter 4
- Lab: HOL sign up /Types of Reactions (report 3)
- Chem101 Quiz 3 due Sunday

Week 4

10/12

- Lecture: Chapter 3/Chapter 4
- Lab: Types of Reactions (report 3)

10/14

- Lecture: **Exam 1** (Chapters 1-3)
- Lab: HOL Getting Started and Lab Safety (Report 4)
- Chem101 Quiz 4 due Sunday

Week 5

10/19

- Lecture Chapter 4
- Lab: HOL Lab Techniques and Measurement (report 5)

10/21

- Lecture: Chapter 6
- Lab: HOL Lab Techniques and Measurement (report 5)
- Chem101 Quiz 5 due Sunday

Week 6

10/26

- Lecture: Chapter 6
- Lab: HOL The Mol/Hydrate (report 6)

10/28

- Lecture: Chapter 6
- Lab: HOL The Mol/Hydrate (report 6)
- Chem101 Quiz 6 due Sunday

Week 7

11/2

- Lecture: Chapter 7
- Lab: HOL Stoichiometry (report 7)

11/4

- Lecture: Chapter 7
- Lab: HOL Stoichiometry (report 7)
- Chem101 Quiz 7 due Sunday

Week 8

11/9

- Lecture: Chapter 8
- Lab: HOL Hess's Law (report 8)

11/11

- Lecture: **Exam II** (Chapter 4,6,7)
- Lab: HOL Hess's Law (report 8)
- Chem101 Quiz 8 due Sunday

Week 9

11/16

- Lecture: Chapter 8,9
- Lab: HOL Titration of Acetic Acid and Vinegar (report 9)

11/18

- Lecture: Chapter 9
- Lab: HOL Titration of Acetic Acid and Vinegar (report 9)
- Chem101 Quiz 9 due Sunday

Week 10

11/23

- Lecture: Chapter 10/11
- Lab: Molecular Geometry (report 10)

11/25

- **HOLIDAY**
- Chem101 Quiz 10 due Sunday

Week 11

11/30

- Lecture: Chapter 10/11
- Lab: Molecular Geometry (report 10)

12/2

- Lecture: **Exam III** (Chapter 8,9,10)
- Lab: **Lab Final**
- Chem101 Quiz 11 due Sunday

Week 12

12/7

- **Final Exam, Tuesday from 11:30 AM to 1:30 PM**

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.
 1. Tap the New Note button in the lower right.
 2. Hit the photo icon.
 3. Choose Scan Documents from the list of pop ups.
 4. Line up the document you wish to scan in the view.
 5. 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.

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.