CHEMISTRY 1A, SECT 20
GENERAL CHEMISTRY
SUMMER 2025

Course and Contact Information:
Instructor: Melody Esfandiari, PhD
Email: esfandiarimelody@fhda.edu
Class Days/time: *Lecture:* Monday–Thursday 2:30 PM – 3:45 PM in SC1101
Lab: Monday–Thursday 11:30 AM – 2:20 PM in SC2202

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. One registration code automatically enrolls you in all two periods. Only one grade is assigned for lecture and lab combined, so the lecture and lab cannot be taken separately *under any circumstances*, since doing so would violate articulation agreements with other institutions. Once you are enrolled you may not switch lab lecture or lab periods, whether on a temporary or on-going basis.

All lectures and labs will be held in person on the De Anza campus.

Student Learning Outcome Statements (SLO)

1. **Student Learning Outcome:** Identify and explain trends in the periodic table.
2. **Student Learning Outcome:** Construct balanced reaction equations and illustrate principles of stoichiometry**.**
3. **Student Learning Outcome:** Apply the first law of thermodynamics to chemical reactions.

Required Materials:

1. ***Chemistry, 9th edition by Silberberg and Amateis (McGraw Hill: 2021, ISBN 978-1-307-60094-0).*** eBook or older/other editions also ok. If you have a different college-level book, you may use that.
2. A scientific calculator that has at least log and exponential functions is required (~ $12). Graphing calculators will not be allowed!
3. OSHA approved **laboratory safety goggles**. Other types of goggles will not be permitted.

This course requires the use of the Canvas platform for the completion of some of the course assignments. You can access Canvas either through your MyPortal account or directly at https://deanza.instructure.com/.

Note that we require a computer and printer. There will be a few lecture handouts and all the laboratory experiments that you need to print out.

All the exams will be conducted on Canvas during our class period. You need to bring your laptop to class to take the exam.

Registration, Attendance, and Conduct Policy:

Registration: Due to safety protocols, 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. Please note that if you are placed in a section from the wait list, you will not be assigned a laboratory locker or be allowed to perform experiments until you are **officially** enrolled in the class.

Attendance: Attendance is expected during all lectures, all lab lectures, and all laboratory periods. Students are expected to be prompt and to leave only when lecture or lab is concluded. Arriving late to lecture is disruptive to the class and **strongly** discouraged. **If you miss lecture, laboratory lecture, or a laboratory period for any reason within the first two days of class, you will be dropped from the course.**

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 Admissions and Records by the appropriate deadline. You are required to officially check out of your lab locker, whether you remain in the course or drop the course. Failure to check out of the lab by the scheduled check-out date will result in an administrative fee, and a block will be placed on your future registration.

OTHER IMPORTANT POINTS:
IF YOU MISS A LABORATORY LECTURE OR A LABORATORY PERIOD FOR ANY REASON WITHIN THE FIRST TWO DAYS OF CLASS, YOU WILL BE DROPPED FROM THE COURSE. TWO OR MORE UNEXCUSED ABSENCES FROM LAB WILL RESULT IN AN AUTOMATIC "F" FOR THE ENTIRE COURSE.

IF YOU ARE DROPPED FROM THE COURSE DURING THE FIRST TWO DAYS OF CLASS, YOUR LOCKER WILL BE INSPECTED AND MAY BE REASSIGNED TO ANOTHER STUDENT. YOU WILL BE HELD RESPONSIBLE FOR ANY BROKEN OR MISSING LAB EQUIPMENT PRIOR TO REASSIGNMENT.

IF YOU FAIL TO CHECK OUT OF LAB YOU WILL ALSO BE CHARGED AN ADMINISTRATIVE FEE AND A BLOCK WILL BE PLACED ON YOUR REGISTRATION.

Conduct: **The ringer on all cell phones and beepers must be turned off during lecture and lab periods**. Please only answer your cell phone if it is an emergency. Please notify me if you need to leave the lab for any reason. 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 will 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.

Basis of Course Assessment:

Lecture Exams and Final

Two lecture exams (~100 points each) will be given. Scheduled dates for the exams are attached. Plan ahead. The final exam (~200 points) will be 2 hours long; it is a comprehensive multiple-choice exam. This course builds on itself, so material covered on a previous lecture exam is needed in a following exam. There will be no make-ups for lecture exams. Should you miss an exam because of illness or equally compelling reasons, you should inform me of the fact as soon as possible, and hopefully before the exam is given. You can do so by emailing me. You will need to provide me with written evidence (doctors' note, police report, etc.) for your excuse. If I accept your excuse, I will use the score on the final (questions pertaining to the particular exam) as your exam score. An unexplained or unsatisfactory excuse for missing a lab or exam will result in a grade of zero. *You will need to bring your photo ID card and a non-programmable calculator to the exam.* Please note that all the exams will be proctored in the classroom during lecture or lab period. You will take the exams on your laptop via Canvas

In-Class Exam Dates
Exam 1: Tuesday, July 15th **Exam 2: Tuesday, July 29th** (*Lecture Exam dates are tentative and may change)*
Final Exam: Thursday, August 7th

Exam Policies (read carefully). If you violate our honor code, you will be reported to the office of student conduct and receive an F for the course.

- The exams will be conducted on Canvas during our regular class time.
- You need to bring your laptop to class to take the exam on Canvas.
- You can NOT use online resources, and you are NOT permitted to talk to

Lecture Quizzes

Several take-home quizzes will be given. Take-home quizzes must be submitted on the assigned due dates, or they will not be accepted. **No make-ups for missed quizzes. Do not miss the due dates!** The quizzes will be posted on your Chem 1A Canvas account, and you will need to finish them online before the due dates. More information will be given in lecture meetings before the due dates.

Once you submit your quiz on canvas, you cannot access it again so make sure you print a hard copy of the quiz for your reference. The quizzes will help you prepare for the exams.

Laboratory

The total lab grade constitutes 35% of the final grade. Failing lab (55.0% or less) or lack of attendance to lab will result in an F grade for the FULL COURSE, irrelevant of how well you are doing in lecture. Do not miss labs, no makeup labs will be allowed! The beginning of each laboratory session is used to review the background, procedure, safety and waste disposal information for each experiment. *You must arrive on time in order to perform the scheduled experiment*. In addition, you are also required to turn in:

A) Pre-lab: Read both the background information and procedure before coming to the lab, and complete a pre-lab. Pre-labs should be prepared directly in your lab notebook and must be handwritten. You will upload it to Canvas. Please use Adobe Scan to upload as a professional PDF file. Unless otherwise directed, you do not need to answer any pre-lab or post-lab questions in the laboratory manual. Late pre-labs will not be accepted! Your pre-lab should include at a minimum the following three items:

1) Chemical hazards • List any important safety information about the chemicals you are using that is given in your experimental procedure. If the procedure does not give any specific chemical safety information for a particular compound, you can find more information online by searching for that compound's Safety Data Sheet (SDS).
2) Chemical disposal • List each substance or mixture generated during the experiment and the appropriate waste container – acidic aqueous, basic aqueous, or organic – is should be disposed in. If you are unsure how a substance or mixture should be properly disposed, leave space so that you can fill in that information during lab lecture.
3) Procedure • You must rewrite the full procedure in your own words with enough detail that you can perform the lab successfully without referring to lab textbook. Do not simply copy the procedure verbatim. You do not have to include any portions of the experiment that are related only to theory, only the procedure itself.

B) Lab Reports: The format for each lab report will be discussed in the lab. The nature and due date of each laboratory assignment will be specified during the lab lecture. For many experiments, you will be collecting data with a partner; however you must record the data, do your own calculations, and formulate your own conclusions

for each experiment. There will be NO MAKE-UP EXPERIMENTS. Each lab report will be worth 15 points and is due at the start of lab lecture on the day it is due.

Important: Lab reports should be in your own words. Copying data, calculations, phrases or paragraphs from another student or the web is considered plagiarism. **No late lab report will be accepted.**

C) Lab Final: There is one cumulative laboratory exam for this course (closed book; no notes permitted). The laboratory exam will be given during your regularly assigned laboratory sessions. The date for the lab exam will be announced by your laboratory instructor, but it will most likely be on the last day of the lab.

Grade Computation

Your course grade will be determined according to the following:

Two in-class lecture exams	30%
Comprehensive in-class final	20%
Take-home Quizzes	15%
Lab*	35%

**Laboratory work accounts for 35% of the total course grade, and it includes the following: Pre-labs, Lab Reports, and a Lab Final*

At the end of the semester, you will receive a single grade for the course. The following grade scale is for the full course, including lab.

above 97.0 % A+
96.9 - 92.0 % A
91.9 - 89.0 % A-
88.9 - 85.0 % B+
84.9 - 80.0 % B
79.9 - 77.0 % B-
76.9 - 72.0 % C+
71.9 - 65.0 % C
64.9 - 61.0 % D+
60.9 - 57.0 % D
56.9 - 54.0 % D-
Below 54.0% F

Dr. Esfandiari reserves the right to change exam dates as well as modify the grade scale at any point during the fall quarter. You must receive a passing lab grade in order to pass this course.

Disability accommodations

Accommodations for a range of disabilities are available through Disability Support Programs & Services (DSPS). To receive an academic accommodation on assessments – such as additional time, a reduced-distraction environment, or the use of alternative media or assistive technology – you must first be evaluated by Disability Support Services (DSS) and obtain a Test Accommodation Verification (TAV) form. **Absolutely no accommodations can be provided on assessments with a completed TAV form.**

Code of conduct

All De Anza students and staff are expected to abide by the Code of Conduct, which is based on the following four principles: 1) mutual respect between students, faculty, and staff; 2) pursuit of studies with honesty and integrity; 3) respect for College and personal property; and, 4) compliance with all rules and regulations. Violations of the Code may be reported for disciplinary action and, in extreme cases, may prompt your removal from the class pending further action.

Diversity

Each of us is born into different cultures, raised speaking different languages, driven to follow different beliefs, compelled to preserve different traditions, trained to follow different conceptions of the Divine. But we all breathe the same air, we all drink the same water, we all are warmed by the same sun, we all marvel at the same moon, we are all made of the same atoms. Beneath our skin lies less than a 1% variation in our genetic composition, so to discriminate on the basis of race, color, national or ethnic origin, age, gender, religion, marital status, sexual orientation, physical ability, economic disposition, social status, political affiliation, or physical appearance is to focus on these insignificant differences between us and ignore the fact that we are all human.

Partial List of Laboratory Safety Procedures

• Students must comply with all safety procedures and precautions when attending a laboratory session.

• There are no provisions for making up a lab; therefore, you are expected to attend all scheduled lab sessions.

• You must have your laboratory procedures written prior to starting an experiment. Lab notebooks will be checked during lab and will be awarded between 1-5 points depending on completeness.

• Laboratory notebooks **must be written in ink** and all data must be written in the laboratory notebook. Scraps of paper containing data will be confiscated. Do not use "white-out." Use one line to cross out incorrect data.

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• Lab lecture will consist of a discussion concerning safety for the experiment being conducted that day as well as information regarding experimental techniques.

• Eating and drinking is not permitted in the lab. **Do not** bring food or drinks to the lab even if they are in closed/sealed containers.

• If you are pregnant or think you are pregnant, it is your responsibility to consult with your physician before taking this course and performing the laboratory experiments.

• You must wear OSHA approved safety goggles and gloves at **all times** while in the laboratory. Failure to comply with this rule will result with your being expelled from the course and receiving a grade of "F."

• Appropriate attire must be worn in the laboratory. Shorts, open toed-shoes, and sleeveless shirts ("spaghetti straps") are **not** considered safe clothing for the laboratory. Clothing made of natural fibers are less of a hazard than those made of synthetic fibers.

• Do not begin the laboratory experiment (e.g. place any chemicals or glassware on the lab benches, turn on Bunsen burners, etc.) until the safety introduction is complete and everyone is wearing their goggles and gloves. The instructor will let you know when it is time to begin the experiment.

• In some cases it will be necessary for the instructor to examine your "set up" before you begin the experiment. In these instances, the instructor will inform you of proper procedures at the beginning of class.

• If you come into contact with a chemical flush the affected area with water immediately for 15 minutes. Depending on the degree of contact with the chemical and the location on the body you may need to do this in the sink or safety shower. When

using the safety shower you must remove the clothing over the area that has come into contact with the chemical. The instructor will ask the other students in the class to leave the room for privacy.

• You will be wearing safety goggles at all times, but should you get a chemical in your eye, flush your eyes in the eye wash for at least 15 minutes.

• If your clothing or hair catches on fire use the safety shower immediately. If this is not possible "stop-drop- and –roll."

• If you are hurt or think you have come into contact with a chemical, notify the instructor immediately (or send a lab partner to fetch the instructor) while following proper safety procedures.

• Know where the eyewash, safety shower, and fire extinguishers are located. (You should be able to do this with your eyes closed!)

• Chemicals should never be taken back to your lab bench. They must be kept in the fume hood in their proper storage containers. All chemicals and waste bottles must be capped after use. **Never** leave a chemical bottle or waste container uncapped.

• If a chemical spill occurs, notify your instructor so that she may help you follow the proper measures for cleaning up chemical spills.

• All waste must go into appropriate waste containers. Never throw anything down the sink or in the regular trash receptacles.

• Never pick up broken glass with your hands. Always use a brush and dust pan to sweep up broken glassware.

• If at any time the instructor feels that you are being unsafe and have not followed proper safety precautions and procedures, you will be asked to leave the lab, and you will receive zero credit for the laboratory report and notebook. You may also be expelled from the course and receive a grade of "F."

• After completing an experiment clean up your lab space as well as glassware. Return all cleaned glassware and other equipment (e.g. Bunsen burners, clamps, steal rods, etc.) to the appropriate cupboards or stockroom.

• After you have completed an experiment and cleaned up your bench space and glassware, check out with the instructor.

• Remember to wash your hands immediately after completing the experiment and checking out. Also, change your clothes as soon as possible. This is especially important if you have children.

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Tentative Laboratory Schedule

CHEM 1A LAB SCHEDULE – SUMMER 2025

WEEK OF	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
June 30	Introduction, Safety Discussion, Check-in (Measurements & Sig Fig) *ATTENDANCE IS MANDATORY!*	Measurements (Conversion, Density, & Periodic Table) *ATTENDANCE IS MANDATORY!*	Nomenclature (Ionic and Covalent Compounds Nomenclature)	Hydrate (Moles)
July 7	Hydrate (Empirical Formula)	Types of Reactions (Chemical Reactions & Solubility Rules)	Types of Reactions (Chemical Reactions & Redox)	Precipitation (Stoichiometry & Limiting Reagent)
July 14	Precipitation Exp (Percent Yield & Review)	Precipitation Exp *LECTURE EXAM I*	Conductivity Exp (Molarity & Titration)	Conductivity Exp (Light & Quantum Mechanics)
July 21	Acid/Base Titration Exp (Electron Configuration)	Acid/Base Titration Exp (Quantum and Oxidation Numbers)	Calorimetry Exp (heat)	Calorimetry Exp (heat)
July 28	Redox Titration Review	Redox Titration *LECTURE EXAM II*	Line Spectra (Lewis Structure & VESPR)	Molecular Model Exp (Polarity)
Aug 4	Molecular Model Exp (Periodic Properties)	Locker Check-out Review	*LAB EXAM*	*CUMULATIVE FINAL EXAM*

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.

Office Hours:

SC1102	TH	3:45 PM - 4:15 PM