CHEMISTRY 1A-53/54 Winter 2025
CRN: 32192 & 34846 GENERAl CHEMISTRY

Instructor: Dr. Amid Salari **email:** salariamid@fhda.edu

LECTURE	**TTh**	**6:00 - 7:15 PM**	**Rm S32**	**Salari**
LAB-53	**TTh**	**2:30 - 5:20 PM**	**Rm SC2202**	**Salari**
LAB-54	**TTh**	**7:30 - 10:20 PM**	**Rm SC2202**	**Salari**
Office Hours	TTh	2:00 - 2:30 PM	Rm SC2202	
	TTh	5:30 - 6:00 PM	Rm S32	

Prerequisites: (Chem. 25 or Chem 30A and Math 114)

Course Description:
Chemistry 1A entails fundamental chemical principles, the components of matter, quantitative chemical analysis and stoichiometry, types of chemical reaction and solution chemistry, thermochemistry, quantum theory, electron configurations, chemical bonding models. The lab is an introduction to the basic methods of chemical experimentation with a strong emphasis on quantitative chemistry.

Course Content Delivery:
Chemistry 1A lectures and lab meetings are both in-person. However, some aspects of the class such as online homework, lab-reports and some course information/communications will be done via Canvas.

Homework:
Homework are assigned and administered online using mastering chemistry via **pearson acsess** which is a web-based tutorial/homework program and **you will access it via Canvas. Note that 8% of your overall grade will be based upon this homework.** The access code for Mastering Chemistry is specific for the textbook, and is valid for 24 months and follows you from course to course (Chemistry 1A to 1B to 1C)**. You only need to purchase one access code for all three courses.** You can purchase access from the De Anza Bookstore or online from the publisher. **In order to do and receive credit for the homework, you must enroll in my online class SALARI_CHEM 1A D001A53/54 :**
The Student Registration Instructions

Required Materials:

- Mastering Chemistry with the eText for Tro's *Chemistry: A Molecular Approach, 6e.* Here are your Purchase Options:
- 14-week direct purchase price when registering - $40.00
- 14-week net price to the bookstore for an access code - $35.00 (final price to student will be determined by their margin)
- 24-month direct purchase price and net price to the bookstore - $105.00 (final price to student will be higher if purchasing through the bookstore)
- Scientific or graphing calculator
- **Safety goggles are required at all times in the lab. Goggles are available in the lab for your use but you may purchase your own from the bookstore if you so prefer.**
- Textbook lecture slides are available on Canvas.

Class Attendance:
This is a fast-paced and challenging course, attending the lecture meetings regularly will help you learn, understand the material and succeed in the class. You are responsible for all the material covered in this course, and it is expected that you attend all class lectures, prelab lectures and laboratory sessions. *If you must be absent, then it is in your best interest to contact the instructor.* You should also exchange phone numbers with a few classmates who you can contact regarding material missed or announcements made by the instructor. Since this is an experimental course, your laboratory work is essential for the understanding of the materials covered. You may be dropped if **3 or more** unexcused lab absences are counted or lab work and reports are missed.

Class Rules and Compliance Requirements (please read carefully)

It is your responsibility to fully understand and comply with all the class rules as listed below:

1. Your presence at the first-class meeting is mandatory. I will go over the syllabus, canvas navigation and all other course rules and requirements.
2. Arrive to class meetings regularly and on time to maximize your learning and interaction with the instructor.
3. You must regularly check Canvas for announcements.
4. Please use Canvas Inbox to contact me and avoid sending emails/documents to my campus email.
5. I will not respond to any email questions that have been clearly answered in syllabus, Canvas, or announced in class.
6. You are responsible for all the class announcements that I make during the lectures. If you must be absent, you must have a classmate contact to inform you of all class announcements and lecture topics.
7. Last but not least, you are solely responsible for meeting the class requirements needed for your success, and for earning your final grade in the class.
8. For any course related questions or concerns, I encourage you to attend my **office hours (TTh 2:00 – 2:30 PM in lab SC2202 and 5:30 - 6:00 PM in S32).**

Grading:

Grading will be based upon two (2) midterm exams, a comprehensive final, online homework and lab work. When computing course grades, each student's overall percentage will be determined from the following

2 Midterm Exams (each 16%) **Comprehensive Final Exam** **OnlineHomework Assignments**	**32%** **30%** **8%**	**Lecture** **70%**
2 Laboratory Tests (each 5%) **Lab-reports & Pre-Labs**	**10%** **20%**	**Laboratory** **30%**

A+> 96%	**A > 90%**	**A- > 88%**	**B+ > 85%**	**B > 80%**	**B- > 78%**
C+ > 74%	**C > 65%**	**D+ > 60%**	**D > 57%**	**D- > 50%**	**F < 50%**

Letter grades will be assigned on a percentage scale as tentatively listed below:

If your average lecture exams score is less than 50%, or your average laboratory quizzes/reports score is less than 50% you will not receive a passing grade.

Incomplete grades *are only given for extenuating circumstances*; for example, VERIFIED illness or legitimate emergencies. If an incomplete is given, all exams and lab work prior to the incomplete are still counted in your grade, only material that has not yet been completed can be made-up in the future. **YOU MUST BE PASSING THE COURSE TO RECEIVE AN INCOMPLETE GRADE.**

Lecture Exams Dates:

First Midterm: Week-05 (Thursday, Feb 06, 2025)
Second Midterm: Week-9 (Thursday, Mar 06, 2025)
Final Exam: Tuesday, March 25 6:00 - 8:00 PM

Lab Tests Dates:
First Lab Test: Week-06 (Thursday, Feb 13, 2025)
2nd Lab Test: Week-11 (Thursday, Mar 20, 2025)

Make-up Exams:
Make-up exams will **NOT** be given. Failure to take the final exam will result in a failing grade.

Textbook section coverage & Homework

The key to a success in chemistry is to practice problem solving. This tests you on your knowledge and prepares you for my exams. Your homework in this course will be **administered and graded** online, which is facilitated through a program called **Mastering Chemistry**. An introduction to Mastering Chemistry handout is provided in my online homework class. I strongly recommend that you first do selected problems from the text prior to performing online homework. This will allow you to first become confident and proficient in applying the key course concepts before attempting the graded online homework. *You must prioritize your time to allow for the successful completion of all of your homework in order to perform above average on the exams in this course.*

Since there is a prerequisite for this course, **I expect you to already be familiar with the material from chapters E and 1.** Although limited lecture time will be spent to review this material, you will be tested on it.

ACADEMIC DISHONESTY:

Academic Integrity: By enrolling in classes at De Anza College, you are agreeing to the academic integrity policy and are held to all standards. Specifics can be found at https://www.deanza.edu/gov/academicsenate/academic_integrity.html

Academic dishonesty includes:

- Plagiarism (copying or allowing someone to copy) lab exercises or reports.
- During an exam, communicating or sharing information to another student, receiving information from someone else, looking at another person's exam, and/or using materials such as textbooks, notes, etc.
- Having another person complete and submit work in your name.
- Lying to an instructor to improve your grade.
- Altering a graded work after it has been returned and then submitting the work for regrading.

Consequences of academic dishonesty may include:

- A report of the violation to the Dean of Student Affairs and Activities; this office keeps a record of students who have engaged in academic dishonesty. Repeated violations may result in administrative action including probation, suspension or expulsion from the college. You may receive an F grade on the work involved; or an "F" in the course.
- Verified cheating on the online homework will result in a score of 0% being given for the homework grade.
- For incidences of lab exercise or report plagiarism, all parties involved will receive a reduced grade or grade of zero for the exercise or report.

LECTURE CONTENT

(Winter-2025)

The following textbook chapters will be covered in Chemistry 1A

Week	Chapter Title	Sections Covered
1	1, Measurements	All Sections
2	2, Atoms & Elements	All Sections
3	2, & 3 Molecules, Compounds, & Chemical Equations	All Sections
4	3, & 4, Chemical Quantities and Aqueous Solutions	All Sections
5	5 Introduction to solutions	All Sections
6	7, Thermochemistry	All Sections
7	8, The quantum Mechanical Model of the Atom	All Sections
8	8, 9 Periodic Properties of of the Elements	All Sections
9	9, Periodic Properties of of the Elements	All Sections
10	10, Chemical Bonding-I, Lewis Model	All Sections
11	11, Chemical Bonding-II, Molecular Shapes, Valence Bond Theory, Hybridization, Molecular Orbital Theory	All Sections
12	FINAL EXAM WEEK **Final Exam: Tuesday March 25 at 6:00 – 8:00 PM**	

Help & Resources for the course:

Amid Salarii: Bring your questions to lectures, prelab lectures, and my office hours on a regular basis. do not wait until the week or day of a test.

Other Students: ● Help each other to learn (not copy!)

● Lab is a great time to get help

● **Disability Service Support:** De Anza is committed to providing support for all students. Please contact me as soon as possible if you require special accommodations and I will be happy to do what I can to help. For more information, visit Disability Service Support at https://www.deanza.edu/dss/
To obtain disability-related accommodations, students must contact the Disability Resource Center (DRC) as early as possible in the quarter. To contact DRC, you may: Email: dss@deanza.edu

Phone: (408) 864-8838 or Visit DRC in Room 141

If you already have an accommodation notification from DRC, please contact me privately to discuss your needs. As such, all students should be aware of the De Anza College policy on academic integrity outlined at: https://www.deanza.edu/gov/academicsenate/academic_integrity.html

LABORATORY: *Chemistry 1A53/54 - Winter 2025*

Chemistry 1A is an experimental course, and the lab component of the course provides you direct hands-on experience in conducting actual experiments in the lab. However, the presence and active involvement of the student in the laboratory entails understanding of the materials covered. A student may be dropped if **3** or more unexcused absences from prelab lectures and lab absences are counted. I will be taking rolls in every lab session.

Required Materials for Lab:

1. Laboratory packet of experiments and exercise for chemistry 1A.

2. Scientific calculator

3. Safety goggles are required at all times in the lab. goggles are available in the lab for your use but 4. you may purchase your own from the bookstore if you so prefer.

Safety Rules:

American Chemical Society Safety in Academic Laboratories Guidelines. 7th Ed.

The following mandatory minimum safety requirements must be followed by all students and be rigorously enforced by all Chemistry faculty:

1. Chemistry Department-approved safety goggles purchased from the De Anza College bookstore (NOT safety glasses) must be worn at all times once laboratory work begins, including when obtaining equipment from the stockroom or removing equipment from student drawers, and may not be removed until all laboratory work has ended and all glassware has been returned to student drawers.

2. Shoes that completely enclose the foot are to be worn at all times; NO sandals, open-toed, or open-topped shoes, or slippers, even with socks on, are to be worn in the lab

3. Shorts, cut-offs, skirts or pants exposing skin above the ankle, and sleeveless tops may not be worn in the lab: ankle-length clothing must be worn at all times

4. Hair reaching the top of the shoulders must be tied back securely

5. Loose clothing must be constrained

6. Wearing "...jewelry such as rings, bracelets, and wristwatches in the laboratory..." should be discouraged to prevent "...chemical seepage in between the jewelry and skin...".

7. Eating, drinking, or applying cosmetics in the laboratory is forbidden at ALL times, including during lab lecture

8. Use of electronic devices requiring headphones in the laboratory is prohibited at ALL times, including during lab lecture

9. Students are advised to inform their instructor about any pre-existing medical conditions, such as pregnancy, epilepsy, or diabetes, that they have that might affect their performance.

10. Students are required to know the locations of the eyewash stations, emergency shower, and all exits

11. Students may not be in the lab without an instructor being present

12. Students not enrolled in the laboratory class may not be in the lab at any time after the first lab period of each quarter

13. Except for soapy or clear rinse water from washing glassware, NO CHEMICALS MAY BE POURED INTO THE SINKS; all remaining chemicals from an experiment must be poured into the waste bottle provided

14. Students are required to follow the De Anza College Code of Conduct at all times while in lab: horseplay, yelling,

offensive language, or any behavior that could startle or frighten another student is not allowed during lab

15. Strongly recommended: Wear nitrile gloves while performing lab work; wear a chemically resistant lab coat or lab apron; wear shoes made of leather or polymeric leather substitute.

- Make sure you read and understand all safety rules.

- **Safety Video**: https://www.youtube.com/watch?v=9o77QEeM-68

Lab Procedure/Policies:

1. All students are expected to arrive at all scheduled lab sessions on time and be prepared to carry out the experiment scheduled for that lab session. This means that you have studied the experiment for the day, have a basic understanding of its purpose, procedure, and the chemistry involved. Before coming to the lab, you should do the assigned pre laboratory reading, read the background discussion and procedure and complete the pre laboratory exercises for the experiment.

Lab Tests: Two lab tests will be given (5% each). The lab tests will be based on the laboratory experiments and exercise; and will cover the chemistry, methodology, calculations and conclusions of the experiments. Critical thinking is required.

Lab Reports

- **ACS safety Module**: This is a requirement for the students to be in the lab. You must complete the safety module and upload your completion certificates to the assignment on canvas.

- **The lab reports** are due one week after the completion of each experiment. It should be submitted via canvas All lab reports must be submitted by the assigned due date to receive full credit.

- There will be 20% deduction for late lab reports up to one week, and 50% deduction for lab reports that are more than one week late.

CHEMISTRY 1A Laboratory Schedule Winter-2025

Week Of	Week	Monday	Tuesday	Wednesday	Thursday
01/06/25	1	Introduction & Check-in	Introduction & Check-in	LabA1 Measurement	Lab A1 Measurement
01/13/ 25	2	Lab A2 Nomenclature	Lab A2 Nomenclature	Lab A3 Hydrate (1)	Lab A3 Hydrate (1)
01/20/25	3	Holiday	Lab A3 Hydrate (2)	Lab A4 Types of Reactions (1)	Lab A4 Types of Reactions (1)
01/27/25	4	Lab A4 Types of Reactions (2)	Lab A4 Types of Reactions (2)	Lab A5 Precipitation (1)	Lab A5 Precipitation (1)
02/03/25	5	Lab A5 Precipitation (2)	Lab A5 Precipitation (2)	Lab A5 Precipitation (3)	Lab A5 Precipitation (3)
02/10/25	6	Lab A6 Conductivity (1)	Lab A6 Conductivity (1)	Lab A6 Conductivity (2) Lab Test 1	Lab A6 Conductivity (2) Lab Test 2
02/17/25	7	President Day Holiday	Lab A7 Acid-Base Titration (1)	Lab A7 Acid-Base Titration (1)	Lab A7 Acid-Base Titration (2)
02/24/25	8	Lab 7 Acid-Base Titration (2)	Lab A8 Calorimetry (1)	Lab A8 Calorimetry (1)	Lab A8 Calorimetry (2)
03/03/25	9	Lab A8 Calorimetry (2)	Lab A9 Redox Titration (1)	Lab A9 Redox Titration (1)	Lab A9 Redox Titration (2)
03/10/25	10	Lab A9 Redox Titration (2)	Lab A9 Redox Titration (3)	Lab A10 Line Spectra	Lab A10 Line Spectra
03/17/25	11	Lab A 11 Molecular Model	Lab A 11 Molecular Model	Check-Out Lab Test 2	Check-Out Lab Test 2
03/24/25	12	Finals	Finals	Finals	Finals

Important Dates:

Monday January 6: First day of Winter Quarter

Sunday January 19: Last day to add-Refund- drop without 'W'

Monday January 20: Holiday MLK

Friday March 1: Last day to drop with “W”

Students Outcomes: 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.

CHECK IN PROCEDURE

(STUDENT VERSION)

1. ACCESS THE ONLINE FORM LINK

Instructor will provide the online form link for the lab. Follow the instructions carefully. Report to your instructor if you come across any issues during the check-in process.

2. LOCKER ASSIGNMENT

Instructor assigns lockers to registered students only. Students on waiting-list can check in only after registering online using the computer in the lab.

3. LOCKER CONTENT

After receiving the assigned locker, student should check over all the glassware in the locker using the online form link. After submitting the form online, remember to save the response before closing the browser. The submitted form will used for checking out

4. MISSING ITEMS REPLACEMENT

, retrieve the saved submitted response and correct the choice to reflect the new status before submitting the response.

5. COMBINATION NUMBER STICKER

Adhere the combination number sticker to the lab notebook.

6. RESPONSIBILITIES

Student must:

A. Take care of all the items in the locker.

B. Lock the locker with the provided combination padlock before leaving your lab.

C. Check out with the instructor on the assigned check-out day or

D. Check out during one of your regularly assigned lab periods if you drop the course.

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:

T,TH	02:00 PM	02:30 PM	In-Person	Rm SC2202
T,TH	05:30 PM	06:00 PM	In-Person	Rm S32