De Anza College Chemistry
25 Course Syllabus
Winter 2024

Course and Contact Information:
Instructor: Melody Esfandiari, PhD
Email: esfandiarimelody@fhda.edu
Class Days/time: *Lecture:* Tuesday & Thursday 12:30 PM – 2:20 PM in S35
Lab (Section 43) Tuesday 2:30 PM – 5:20 PM in SC2208
Lab (Section 44) Thursday 2:30 PM – 5:20 PM in SC2208

Office Hours: Tuesday and Thursday 12:00 PM – 12:30 PM in S35

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. Everyone will have the same lecture period, but a different lab period depending on which code you used for enrolling. 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 period whether on a temporary or on-going basis.

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

Course Description: Chemistry 25 is meant to serve as an introduction to and grounding in the core theory and problem-solving techniques of chemistry as a preparation for a General Chemistry course (Chem 1A) and other science related fields. Conceptual topics include modern atomic and molecular theory, the mole and stoichiometry, behavior of gases, thermochemistry, and an exploration of the standard classes of chemical reactions. Laboratory topics covered include an introduction to gravimetric and volumetric analysis, introductory lab equipment and techniques, and keeping a laboratory notebook. Throughout all topics we will stress both conceptual and mathematical problem-solving techniques in order to prepare students to tackle these topics more in depth in following classes.

Prerequisites: Math 114 or equivalent

Textbook & Materials:

1. **Text**: Introduction To Chemistry, fifth edition by Bauer, Brik and Marks (McGraw-Hill). *eBook or older/other editions also ok. If you have a different college-level book, you may use that.*

2. **Lab Manual:** Preparation for General Chemistry: Chem 25, by Applegate, Neelyand Sakuta (McGraw-Hill). This is a custom lab manual that can only be purchased at the De Anza Bookstore. Make certain to buy the version listed for Chem 25.
3. A scientific calculator with log and exponential functions. No graphing calculators.
4. Safety Goggles, needs to meet the ANSI Z87.1 or Z87+ specification, which will generally be listed in the product description. Visorgogs or Z87.1-2010 Rates Safety Glasses

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 that need to be printed.

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 concerns, 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. TWO OR MORE UNEXCUSED ABSENCES FROM LAB WILL RESULT IN AN AUTOMATIC "F" FOR THE ENTIRE 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 lab by the scheduled check-out date will result in an administrative fee and a block will be placed on your future registration.

Resources:

Tutoring: De Anza's tutorial center is in S43. This and many other campus services can be found as part of the student success center: http://www.deanza.edu/studentsuccess
Disability Support Program and Services: DSPS can help you get the right tools to succeed. Their website is http://www.deanza.edu/dsps/

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 can arrange to take the exam a day early if you have a planned, excused absence for the exam day. *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 period. You will take the exams on your laptop via Canvas.

In-Class Exam Dates
Exam 1: Tuesday, Feb 6th **Exam 2: Tuesday, March 5th** (*Lecture Exam dates are tentative and may change)*
Final Exam: Thursday, March 28

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 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 25 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. Do not miss labs, there are no makeup labs will be allowed! We will conduct 9 experiments and will turn in 9 **Lab Reports** (25% of your grade) and there will be a **Lab Final** (10% of your grade) on the last day of lab. The format for each lab report will be discussed in the lab. LABORATORY REPORTS generally include the signed pre-lab, recording of data, and the completed laboratory report sheets. Each lab report will be worth 15 points and is due at the start of lab lecture on the day it is due. **Late lab reports will not be accepted!**

Pre-Labs: Before beginning a new experiment, you are required to complete the pre-lab questions for that experiment. The pre-lab questions are in the laboratory manual and should be answered directly on there (not on a different piece of paper).

Lab Final: There is one cumulative laboratory exam for this course (closed book; no notes permitted).
The lab exam is worth 100 points. 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 lab. No early, late or make-up lab exams will be given, and all lab exam scores will count toward your overall course grade (10% of your grade)

Important: Lab reports should be in your own words. Copying data, calculations, phrases or paragraphs from another student or the web is considered plagiarism. Lab reports are generally due **two** lab periods after the wet chemistry is completed. Ex. You complete the first lab on a Thursday. The report is then due the following Tuesday. There are some exceptions to this deadline and those will be noted accordingly at appropriate times in the course. **No late lab report will be accepted.**

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 works account for 35% of total course grade and it includes the following: 25% Lab Reports and 10% 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.

Tentative* Lab and Lecture Schedule for Chem 25: *Subject to Change
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Week	Week of	Lab Topic	Lecture Topic
1	Jan 8	Introduction, Safety, & Check in	Periodic Table & Measurements
2	Jan 15	Lab 1: Taking Measurements	Atomic Theory & Properties
3	Jan 22	Lab 2: Density and Gravity	Compounds and Naming
4	Jan 29	Lab 3: Atomic Structure and periodic Table	Mole & Empirical Formula
5	Feb 5	Lab 4: Ionic Compounds	**Exam I (Feb 6th)** Chemical Reactions
6	Feb 12	Lab 5: Empirical Formula	Stoichiometry & Limiting Reagents
7	Feb 19	Lab 6: Chemical reactions	Concentration & Titration
8	Feb 26	Lab 7: Molar volume	Lewis Structures
9	Mar 4	Lab 8: Covalent Compounds	**Exam II (March 5th)** Idea Gas Law & IMF
10	Mar 11	Lab 9: Vinegar Analysis	Acid, Bases & pH
11	Mar 18	Lab Exam / Check Out	Review
12	Mar 25	**No Lab and No Lecture**	**Cumulative Final Exam (March 28th)**

Student Learning Outcome(s):

- Assess the fundamental concepts of modern atomic and molecular theory.
- Evaluate the standard classes of chemical reactions.
- Demonstrate a fundamental understanding of mathematical concepts pertaining to chemical experimentation and calculations.

Office Hours:

In-Person	S35	T,TH	12:00 PM	12:30 PM