CHEM D030A – Introduction to General, Organic and Biochemistry I

De Anza College | Fall 2026

Nazanin Nahrjou, MS

Contact Information	**Email**: nahrjounazanin@fhda.edu **Office Hours**: TTR, 5-5:30 PM, Science Center, Office Area, 2nd floor "I'm available before and after the labs and lectures for your questions or booking an online office hour"
Class Meetings	**Lecture**: TTR (S63 & S64), 8:30 PM-10:20 PM, ADM119 **Lab**: Tuesday (S63), Thursday (S64), 5:30 PM-8:20 PM, SC2204 (Pink Lockers)

Welcome

Welcome to CHEM 30A. This course is designed to help you build a strong foundation in chemistry through clear explanations, guided practice, and hands-on lab work. We will learn step by step, ask questions often, and work toward confidence with both concepts and calculations.

Course Description

This course is the first quarter of the general inorganic, organic, and biological chemistry course for students entering allied health fields. Introduction to General, Organic, and Biochemistry I focuses on an introduction to general chemistry. The course opens with an overview of the scientific method and chemistry as the study of matter and its transformations, followed by a discussion of measurement and unit analysis. The central topics include an introduction to elements, compounds, and types of bonding in compounds, leading to a survey of classes of chemical reactions and stoichiometric calculations based on chemical equations. Subsequent discussion of intermolecular forces and phases and phase changes lead to a consideration of the properties of gases (the limit of weak intermolecular forces), and the course concludes with discussions of acid-base chemistry and nuclear chemistry.

Course Overview

- Prerequisite: Intermediate Algebra or equivalent.
- This course introduces basic chemical principles and problem-solving skills that prepare students for future chemistry and science courses.
- Topics include atoms, molecules, ions, chemical formulas, the mole concept, reactions, gases, solutions, and introductory laboratory techniques.

Course Materials

- Textbook: General, Organic and Biological Chemistry: Structures of Life, 6th Edition Authors: Karen Timberlake (Optional, reference of instructor resources) General, Organic, and Biological Chemistry: Structures of Life, 6th, Pearson
- **Lab Manual: The Laboratory Manual for each experiment will be available through CANVAS, *Required**
- a laboratory notebook for recording your experimental procedures and results. (a plain composition book is sufficient)
- **A scientific calculator with logarithm and exponential functions. *Required**
- **Safety goggles that meet ANSI Z87.1 or Z87+ standards (e.g. VisorGogs) *Required/provided by the lab**
- Supplemental Free Online Texts: OpenStax Chemistry, 2nd edition. Available free online at openstax online textbook
- *LibreTexts: Introductory Chemistry:*
  The Basics of General, Organic, and Biological Chemistry (Ball et al.)
  Introductory Chemistry (LibreTexts)

Student Learning Outcomes

- Solve scientific problems by applying principles of dimensional analysis, particularly in the context of reaction stoichiometry.
- Describe the structure and properties of chemical elements and compounds and identify common classes of chemical reactions.
- Convert between different systems of units used in scientific, calculations to solve introductory and more advanced problems in chemistry.
- Characterize different types of chemical reactions to better comprehend oxidation-reduction, acid-base, and other chemical processes in biological, organisms.

Course Work and Grading

Component	Weight
Two Midterm Exams	20%
Final Exam	20%
Online Homework	20%
Canvas quizzes	10%
Lab Experience (Pre labs, Reports, Safety)	30%
Total	**100%**

Letter Grade Scale

Grade Scale: A (90-100%), B (80-89%), C (70-79%), D (55-69%), F (below 54%)

Passing this course requires demonstrating competency in each major component and subjects, not simply accumulating enough total points. This approach ensures you develop the solid foundation you'll rely on in subsequent chemistry courses. Extra credit is not offered in this course. I am, however, always glad to meet with you to discuss study strategies and ways to strengthen your understanding. If you find yourself struggling, please reach out early rather than waiting until the end of the quarter. Your progress matters to me. I do my best to adjust course assignments and contents so that they address the most important topics and strengthen your learning pathway throughout the quarter.

Artificial Intelligence (AI) Policy

AI tools are becoming a normal part of scientific and professional work, and I have no interest in pretending otherwise. What I do ask is that the work you submit in this course reflects your own reasoning, so AI-generated content is not permitted on assignments, lab reports, or exams. My goal in reading your work is to follow your thinking, how you set up a problem, where your reasoning holds, and where it breaks down. A polished answer tells me very little; a worked-through one tells me exactly where to help you.

Consider it the same way you would a calculator in an arithmetic class: the tool itself is not the enemy, but if you never learn to estimate whether an answer is reasonable, you won't notice when the tool is wrong. Chemistry is full of moments where the number on the screen is off by a factor of a thousand, and only a trained intuition catches it. Building that intuition is the point of this course. If you're ever unsure whether a resource or tool is acceptable for an assignment, please ask me before using it, I'd much rather have that conversation in advance than address an academic integrity issue afterward.

Canvas Information

Canvas is the learning management system used across the Foothill-De Anza Community College District, and it is where all course materials live: the syllabus, lab handouts, worksheets, quizzes, homeworks, announcements, and grades. Log in through “fhda portal” and select this course. Please check Canvas regularly, since announcements and schedule changes are posted there first.
If you have trouble logging in, contact me right away rather than struggling on your own. New accounts often need to be linked for the first time, and I'm glad to help you through that. the district's online learning help desk is also available for technical support.

Attendance, Exams, and Lab Expectations

Attendance on the first day and throughout the first two weeks of the quarter is mandatory, students who do not attend during this period may be dropped by the instructor. If an extenuating circumstance prevents you from attending, notify me immediately so your spot will be safe. Attendance is strongly encouraged at all lectures and required for all quizzes, exams, and laboratory sessions. Be sure to sign the roll sheet at every lab so your attendance is recorded. Any unexcused absence from an exam or lab will be recorded as a score of zero. Students are responsible for following up with the instructor regarding any

missed work. If you know in advance that you will be absent, arrange to complete the affected assignments beforehand. In the case of an emergency, you must contact me asap before/after the missed exam. Please note that there are no make-up days for laboratory sessions. Attendance will be recorded at every lab meeting.

Participation Policy

Consistent participation is expected in every session of this course. A student may be dropped from the class under any of the following conditions:

• Failure to attend the first two weeks of the quarter without notifying me.

• Unexcused absences totaling more than 10% of the scheduled class hours for the quarter

• Two unexcused lab absences, or three lab absences in total (excused or unexcused)

I understand that legitimate circumstances; illness, changes in work schedule, family obligations, and the like, can occasionally keep you from attending. If this happens, please message me with the date of the absence and a brief explanation. When the reason is an excused one, I will do my best to accommodate the missed work.

Policy on Late Assignments

Deadlines exist to keep the course moving and to make sure feedback reaches you while it is still useful. At the same time, I know that a quarter rarely goes exactly as planned, so the policy below builds in some flexibility from the start.

Grace Period

• Lab reports, problem sets, and Canvas practice quizzes: submissions are accepted up to three days past the posted due date with no penalty and no explanation needed.
• In-person midterms, and final exams: these must be completed at the scheduled time. Genuine emergencies are handled case by case.

If Something Serious Comes Up

Difficult circumstances are a normal part of life, and they do not have to derail your quarter. If you find yourself in one, contact me as early as you can. A brief, honest message about what is going on gives me something to work with; silence until the end of the quarter usually does not. I will treat your situation with respect and discretion, and I ask the same straightforwardness in return.

Extensions

Where an extension is warranted, I will grant one. Work submitted beyond the grace period without an approved extension is subject to a 10% deduction per day. Whatever we agree on, I will state the terms clearly in writing so there are no surprises when grades are posted.

Policy on Student Conduct

Every student in this course is entitled to a respectful and supportive learning environment, and I take that responsibility seriously. Disruptive conduct is not tolerated, this includes talking over the instructor or classmates, monopolizing instructor time, demeaning or discriminatory remarks, and any coercive behavior toward others. Safety-related misconduct in the laboratory is treated with equal seriousness. A student engaging in such behavior will be asked to leave for the remainder of the session, and a second occurrence will be referred to the Dean for disciplinary action.

Classroom Community

- Please help create a respectful, welcoming learning space for everyone.
- If you arrive late, enter quietly so class can continue smoothly.
- Silence phones during class and use laptops for course-related work.
- In lab, follow safety instructions carefully and leave your workspace clean.

Academic Integrity

Learning is strongest when your work reflects your own understanding. Studying together is encouraged, but quizzes, exams, lab reports, and submitted assignments should be completed honestly. Academic dishonesty may result in a zero on the work involved and may also be referred through De Anza College procedures.

Student Resources

Foothill College offers a range of support services at no cost, including tutoring, counseling, academic advising, the STEM Success Center, financial aid, and basic-needs assistance. If something outside of class is making it harder to succeed in this course, these services exist precisely for that reason, please use them.

Disability Support Programs and Services (DSPS)

Students with a documented disability are entitled to reasonable accommodations. If you need accommodations for lecture, lab, or exams, please contact DSPS to begin the process, and they will share your accommodation request with me as early in the quarter as possible so I can make the necessary arrangements. Laboratory accommodations may require advance planning around equipment and safety procedures, so earlier notice is genuinely helpful. All conversations about accommodations remain confidential.

Tentative Weekly Outline

This outline may be adjusted slightly based on class pace, campus scheduling, or instructional needs.

CHEM 030A - Fall 2026 Lecture & Lab Schedule				
Week	**Day**	**Date**	**Lecture**	**Lab Tuesday/Thursday**
1	Tuesday	22-Sep	Introduction & Syllabus	Syllabus, Lab safety & check-in
	Thursday	24-Sep	Math Skills for Chemistry!	
2	Tuesday	29-Sep	Ch. 2 Chemistry & Measurements	DENSITY
	Thursday	1-Oct	Ch. 3 Energy & Matter	
3	Tuesday	6-Oct	Ch. 4 Atoms & Elements	NOMENCLATURE + STRUCTURES
	Thursday	8-Oct	Review session for Test 1	
4	Tuesday	13-Oct	**Test 1**	SAND/SALT SEPARATION
	Thursday	15-Oct	Ch. 6 Compounds & their Bonds	
5	Tuesday	20-Oct	Ch. 7 Chemical Reactions & Quantities	CHEMICAL REACTIONS
	Thursday	22-Oct	Ch. 7 Chemical Reactions & Quantities	
6	Tuesday	27-Oct	Ch. 8 Gases	YIELD OF SODIUM CARBONATE
	Thursday	29-Oct	Review session for Test 2	
7	Tuesday	3-Nov	**Test 2**	SYNTHESIS OF ALUM
	Thursday	5-Nov	Ch. 9 Solutions	
8	Tuesday	10-Nov	Ch. 9 Solutions	GAS FORMING REACTION
	Thursday	12-Nov	Ch. 10 Chemical Equilibrium	
9	Tuesday	17-Nov	Ch. 10 Chemical Equilibrium	VINEGAR TITRATION (1)
	Thursday	19-Nov	Ch. 11 Acids & Bases	
10	Tuesday	24-Nov	Ch. 11 Acids & Bases	VINEGAR TITRATION (2)
	Thursday	26-Nov	No Class & lab - THANKSGIVING	
11	Tuesday	1-Dec	Review for Final Exam (1)	CHECK-OUT
	Thursday	3-Dec	Review for Final Exam (2)/Practice	
12	Tuesday	8-Dec	**Cumulative Final Exam:** **<u>Tuesday from 8:30 PM to 10:30 PM</u>, Room ADM 119**	

Student Learning Outcome(s):

• Solve stoichiometric problems by applying appropriate molar relationships.
• Identify the differences between elements and compounds and describe the chemical bonding in compounds- ionics vs. covalent.

Office Hours:

5:00 PM - 5:30 PM	Science Center, Office Area	T,TH