CHEM 1A General Chemistry
Spring 2026 Syllabus

Instructor: Dr. Semere Bairu
Email: bairusemere@fhda.edu

Office Hours:
Wednesday 7:30 PM – 8:30 PM *(via canvas zoom)*
Location: 2nd Floor, Science Center (offices across from the lab entrances)

Course Sections (CRN):

- Section 51: 42666
- Section 52: 46691

Section	Class	Instructor	Time	Location
51,52	Lecture	Bairu	T, Th 6:00 pm – 7:15 pm	FOR1
51	Lab	Artun	T, Th 2:30 pm – 5:20 pm	SC2202
52	Lab	TBA	T, Th 7:30 pm – 10:20 pm	SC2202

Prerequisite: CHEM 25 or CHEM 30A or satisfactory score on the Chemistry Placement Test; and intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra.

Required Materials:

1) **Textbook:** Modified Mastering Chemistry with Pearson E-text. *Chemistry: A Molecular Approach (6th Edition) Tro* ISBN: 9780137831968. It is accessible via Canvas through Access Pearson.
2) **Computer** with internet access to access Canvas site
3) **Scientific calculator**—Must do scientific notation (EE or EXP) and logarithms (ln, etc.).
4) **Safety goggles**. They are **required** during lab experiment sessions and are available for use during labs. If you want to own a personal pair, they are available in the campus bookstore or Amazon.

Access Pearson: We will use Access Pearson for Mastering Chemistry as our reading platform (E-text) as well as for homework. **Please purchase the E-textbook with Mastering Chemistry**. You will have courtesy access through the second week of the quarter. By then, you should purchase an access code either directly from Pearson or through the campus bookstore.

Important Registration Deadlines:

- **Course Add:** April 19 (add code required)
- **Course Drop without W:** April 19
- **Course Drop with W:** May 29

1. Course Description

This course offers an introduction to chemistry as the first of a three-quarter general chemistry series. This course will cover how we measure the properties of matter and describe the structure of atoms in the context of basic quantum mechanics. Additionally, we will cover important models for covalent bonding and explore the many types of chemical reactions. The way in which molecules react to form new bonds, and thus new molecules, will be connected to the transfer of heat energy and bond stability.

2. Procedures

Exams. All exams must be taken in-person and require a **SCANTRON** form. **SCANTRON** forms are available at the bookstore or at Amazon. There are no make-up exams. For all lecture exams, you will be allowed to bring in **one index card** (4 x 6 inches; written on both sides) as long as the note sheets are self-generated (no photocopying or screenshots). You will be provided with a **periodic table** and other materials needed.

Exam 1: Tuesday, May 5 (*covers Chapters 1,2,3,4*)

Exam 2: Thursday, June 4 (*covers Chapters 5,7,8,9*)

Final Exam: Tuesday, June 23 from 6:15 pm – 8:15 pm (comprehensive; approximately 20% Exam 1, 40% Exam 2, 40% Chapters 10 & 11)

Labs. You must attend all lab sessions and must not arrive late. You must receive a passing grade in the lab section of the class to pass the course. If you miss 3 or more lab periods, you will receive an F for this course. To participate in a lab session, you must have prepared for the lab experiment and be wearing appropriate lab attire. See the 'Laboratory Policies' section for more details on attire. If you are unable to make it to a lab session, contact the instructor via Canvas/e-mail to let them know as soon as possible.

After you finish a laboratory experiment, you must complete the lab report and turn it in on Canvas by the due date set by your lab instructor.

3. Course Requirements and Grading

Approximate Grade Components

Component	% of Grade
In-class Quizzes	5
Homework (Mastering)	15
Lab Section	30
Exam 1	15
Exam 2	15
Final Exam	20
TOTAL	**100**

Grade breakdowns are as follows:

Grade Percentage	Letter Grade	Grade Percentage	Letter Grade
95-100%	A+	72-76%	C+
90-94%	A	62-71%	C
87-89%	A-	60-61%	D+
84-86%	B+	52-59%	D
80-83%	B	50-51%	D-
77-79%	B-	<50%	F

4. Lab Reports for Canvas

Throughout the quarter, you will submit lab reports by creating a PDF and uploading it to Canvas. Recommended apps for this purpose include GeniusScan and CamScanner. Please avoid using Adobe apps, as the resulting files are often too large to read. Make sure all documents are scanned and combined into a **single PDF file** with a clear file name. It is difficult to grade multiple image files.

5. Academic Honesty

a. Cheating will result in a 0 grade for the assigned work in question and a warning. Further cheating will subject you to increasing disciplinary measures, including referral to the Vice President of Student Services for disciplinary action.

b. Good rules of thumb during exams:

i. Do not look directly at other students' work or let others look directly at your work.

ii. Turn off your phone and put it away during all exams.

6. Accommodation for Students with Disabilities

The mission of Disability Support Programs and Services (DSPS) is to ensure access to the college's curriculum, facilities, and programs, and to promote student success in realizing individual educational and vocational goals. DSPS includes on- and off-campus programs and services offering students with disabilities a comprehensive array of accommodations, educational assistance classes and support services. Find out more about their services by going to Disability Support Programs and Services (DSPS). You can sign up to speak with a counselor online or request assistance by email (dss@deanza.edu) or phone (408) 864-8838.

7. Flexibility Clause

There may be a need to make changes to this syllabus over the course of the semester. Students will be given as much notice as possible if any changes need to be made.

Tentative Lecture Schedule with Textbook Chapters:

Week of	Week	Tuesday	Thursday	Assignment
04/05/2026	1	Mastering Chemistry and Chapter 1	Chapter 1, 2	Ch. 1 HW due on April 5th
04/12/2026	2	Chapter 2	Chapter 3	Ch. 2 HW due on April 12th
04/19/2026	3	Chapter 3	Chapter 4	Ch. 3 HW due on April 19th
04/26/2026	4	Chapter 4	Chapter 5	Ch. 4 HW due on April 26th
05/03/2026	5	EXAM 1 (Ch.1-4)	Chapter 5	Ch. 5 HW due on May 3rd
05/10/2026	6	Chapter 7	Chapter 7	Ch. 7 HW due on May 10th
05/17/2026	7	Chapter 8	Chapter 8	Ch. 8 HW due on May 17th
05/24/2026	8	Chapter 9	Chapter 9	Ch. 9 HW due on May 24th
05/31/2026	9	Chapter 10	EXAM 2 (Ch. 5,7,8,9)	
06/07/2026	10	Chapter 10	Chapter 11	Ch. 10 HW due on June 7th
06/14/2026	11	Chapter 11	Chapter 11/Review	Ch. 11 HW due on June 14th
06/21/2026	12	FINAL June 23rd 6:15 PM – 8:15 PM		

Tentative Lab Schedule

WEEK OF	WEEK	TUESDAY	THURSDAY
4/5/2026	**1**	CHECK-IN (first day)	MEASUREMENT (NO PREP)
4/12/2026	**2**	NOMEMCLATURE (NO PREP)	HYDRATE (1)
4/19/2026	**3**	HYDRATE (2)	TYPES OF REACTIONS (1)
4/26/2026	**4**	TYPES OF REACTIONS (2)	PRECIPITATION (1)
5/3/2026	**5**	PRECIPITATION (2)	PRECIPITATION (3)
5/10/2026	**6**	CONDUCTIVITY (1) (VERNIER)	CONDUCTIVITY (2) (VERNIER)
5/17/2026	**7**	ACID-BASE TITRATION (1)	ACID-BASE TITRATION (2)
5/24/2026	**8**	CALORIMETRY (1) (VERNIER)	CALORIMETRY (2) (VERNIER)
5/31/2026	**9**	REDOX TITRATION (1)	REDOX TITRATION (2)
6/7/2026	**10**	LINE SPECTRA	LINE SPECTRA*
6/14/2026	**11**	MOLECULAR MODEL (1)	CHECK-OUT
6/21/2026	**12**	FINALS	FINALS

Learning Strategies

1) Prior to the lecture, **review** the textbook sections that are going to be discussed.
2) Prior to each lab, carefully **review** the lab procedure, the Safety Data Sheets (SDS) for the chemicals that will be involved, and prepare any data tables that may be required in your lab manual.
3) **Ask** questions of your classmates and the professor.
4) **Use** other material on the internet in addition to the textbook to help with studying and learning the material.

1. Laboratory Policies

Safety Contract and Laboratory Rules

De Anza College's laboratory safety contract is available on Canvas. The safety contract *summarizes* safety rules, precautions, and practices for the course. **A signature is required before the first lab** experiment session, and failure to sign the safety contract will result in your withdrawal from the course. In addition, a perfect score on the safety exam in Canvas is required before the first actual lab experiment.

Safety is our first concern in the chemistry lab. You must follow the safety rules and instructor's directions in the lab. In addition, it is particularly important to have your cell phones in your backpack, dress appropriately, and never eat or drink in the lab. If needed, you can leave the room for a short time, but please avoid excessive exit/entry from the lab and never leave a lab experiment unattended.

Personal Safety Equipment Requirements

Students are required to use safety glasses or goggles during lab experiments. The Department will provide goggles to be checked out for the lab period, so you are not required to purchase goggles. These goggles are shared amongst our chemistry students. Lab goggles can be purchased from the campus bookstore.

It is mandatory that you dress appropriately for lab. Loose, baggy clothing is discouraged. Long hair must be pulled back; full-length shirts (covering the midsection) and long pants are required during lab days. You must wear flat, closed-toe, closed-heeled shoes. Students violating these clothing and safety requirements will not be allowed in the laboratory.

Lab Attendance

The laboratory activities – lab experiments and work sessions – are essential for this course. Understanding chemistry requires you learn laboratory techniques, so if you are absent three (3) or more lab meetings during the semester, you will be given an F for the course.

At the start of each lab, there will be a short pre-lab lecture. During the pre-lab lecture, important safety information and chemical handling procedures (if any) will be reviewed. Thus, it is essential that everyone arrive at the lab on time. If you arrive late and miss any part of the pre-lab lecture, you may not be allowed to participate in lab. **There are no make-up labs**. If you are unable to make it to a lab, please let your lab instructor know as soon as possible by e-mail/Canvas.

Lab Reports

After you finish a laboratory experiment, you must complete the entire lab report and turn it **on Canvas.** Due dates will be posted on Canvas. Unless otherwise instructed, you may NEVER submit a report for a lab that you were absent from. Also, you may be working in pairs or groups, but it is essential that your lab reports and work sessions represents your own work and may not be copied from others – including AI-generated materials.

Falsifying records, changing data entries, or copying a lab report are forms of academic dishonesty and violating De Anza College's policies.

Unauthorized Experiments

Unauthorized experiments are expressly forbidden. Anyone conducting unauthorized experiments will be removed from the class immediately, and a report will be filed with the Division Dean and Vice-President of Student Services.

Lab Accidents/Injuries

Accidents and spills can happen in the lab. While accidents do not affect your grade - unless they result from disruptive behavior or unauthorized experiments - how you deal with the accident and/or injury is important. No matter how trivial the accident may be, please notify your instructor without delay.

Chemistry Laboratory Safety Rules

Any student who disregards safety rules may have his/her overall grade lowered at the discretion of the instructor. Consistent failure to follow these rules or serious infractions may result in outright expulsion from the course.

Locker Policy

If you are provided with a lab locker for the quarter, you are required to officially check out of that locker, whether you complete the course or not. Failure to check out of your lab locker by the official checkout date may result in your grade being held and/or a block being placed on your future registration.

2. Information and Campus Policies

Nondiscrimination Statement

The college, the district and their representatives shall provide access to services, classes and programs without regard to national origin, immigration status, religion, age, gender, gender identity, gender expression, race or ethnicity, color, medical condition, genetic information, ancestry, sexual orientation, marital status, physical or mental disability, pregnancy, or military and veteran status, or because someone is perceived to have one or more of the foregoing characteristics, or based on association with a person or group with one or more of these actual or perceived characteristics.

Student Help and Support

De Anza College is here to support you with many Student Services.

Student Learning Outcome(s):

- Apply unit conversions and problem-solving skills.
- Understand atomic structure and periodic trends.
- Explain chemical bonding and molecular structure.
- Perform stoichiometric calculations.
- Describe gas behaviour and thermochemistry.

Explain solution properties and concentrations.

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:

W	7:30 PM - 8:30 PM	Online via canvas zoom