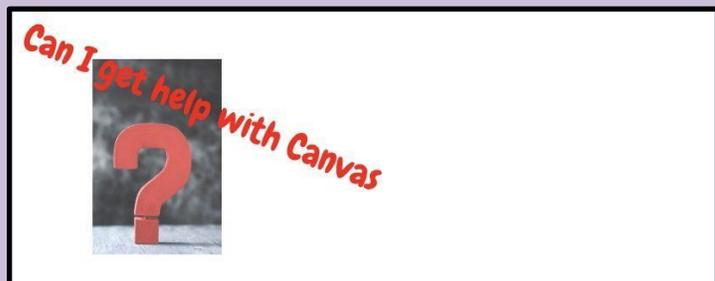


CHEM1B - General Chemistry**A. INTRODUCTION:**

- **Lecture Instructor:** Burcak Artun, PhD (artunburcak@fhda.edu)
 - *Lab Instructors:* Dr. Brophy, Dr. Artun
- **Course Website:** Canvas

**INTRODUCTION:**

- **Instructor:** Burcak Artun, PhD (artunburccak@fhda.edu)
- **Course Website:** Canvas
- **Times**
 - **Lecture (01 & 02):** M W 12:30pm-1:45pm
 - **Lab 01 (Dr. Brophy):** M W 8:30am-11:20am
 - **Lab 02 (Dr. Artun):** M W 2:30pm-5:20pm
- **Office Hours:** TBD or by appointment on zoom

STUDENT RESOURCES:

De Anza student resource pages:

[Your Guide to the Quarter](#)
[Student Services at DeAnza](#)

Canvas Help:

[Get Help With Canvas](#)

Important Dates and Deadlines

[DeAnza Academic Calendar](#)

January 9	First day of winter quarter
January 16	Martin Luther King Jr. Holiday - no classes , offices closed
January 21	Last day to add classes
January 22	Last day to drop classes without a W
February 17-20	Presidents' Holiday - no classes , offices closed
Mar 3	Last day to drop classes with a W
Mar 27-31	Final exams

B. COURSE OVERVIEW AND OBJECTIVES

Description:

- **Overview:** Chemistry 1B is the second quarter of a three-part introduction to the principles of general chemistry, and a direct continuation of Chemistry 1A.

Chemistry 1B consists of the study of intermolecular forces and their effects on the physical and chemical properties of matter, investigation of reversible reactions in terms of kinetics, thermodynamics, and equilibrium, the study of gas laws and kinetic molecular theory and their applications.

- **Prerequisites:** CHEM 1A or CHEM 1AH with a grade of C or better
- **Advisory:** EWRT 1A or EWRT 1AH or (EWRT 1AS and EWRT 1AT) or ESL 5.
- **Units:** 5 Units
- **Hours:** Weekly Lecture Hours: 3
Weekly Lab Hours: 6

Course Format:

The course is divided into two separate instructional periods. A lecture period, and a lab period. These sections will both be conducted in person. My experience is that students who are present, pay attention and engaged in classes are more successful. So I strongly encourage each of you to attend the lectures. Attendance at each is actually mandatory. At De Anza College, **the lab and lecture may not be taken as separate courses under any circumstances.**

Course objectives:

- ❖ **Course Objectives**
- ❖ Evaluate how intermolecular forces influence solids, liquids and phase changes
- ❖ Calculate the rate of a reaction and assess the mechanism of action
- ❖ Utilize the fundamental principles of equilibrium to probe reaction dynamics.
- ❖ Differentiate between acids and bases and evaluate their reactivity.

- ❖ Employ the principles of equilibrium in an expanded discussion of thermodynamics.
- ❖ Analyze the behavior of gases

C. REQUIRED MATERIALS

- **Textbook: *The Molecular Nature of Matter and Change***, 8th or 9th Edition by Silberberg and Amateis (*McGraw-Hill*) This textbook is used for the Chem 1 A-B-C Series.
- **Supplemental Texts:**
OpenStax Chemistry, 2nd edition.
Available **free** online at [openstax online textbook](#)
- **Calculator:** A simple scientific calculator with natural log functionality is necessary and sufficient for this class. You can use previously purchased ones, but graphing functionality will not be necessary to use.

D. COURSE WORK AND GRADING

Notes on Grading:

- There will **not be a curve** in general, but I may curve individual exams if deemed necessary.
- Final Exam is **not cumulative**
- You will need to **pass both lab and lecture** to be able to pass the course

1. Grading Breakdown

Lecture	70% of Total Grade
<i>Homework</i>	<i>10 % of Lecture</i>
<i>Assessments (Midterms Quizzes)</i>	<i>65% of Lecture (40% 25%)</i>
<i>Final Exam</i>	<i>20% of Lecture</i>
<i>Participation</i>	<i>5% of Lecture</i>
Lab	30% of Total Grade

Grade Scale:

A+	97.0 – 100.0 %	C+	73.0 – 76.9 %
A	90.0 – 96.9 %	C	70.0 – 72.9 %
A–	87.0 – 89.9 %	D+	66.0 – 69.9 %
B+	84.0 – 86.9 %	D	63.0 – 65.9 %
B	80.0 – 83.9 %	D–	60.0 – 62.9 %
B–	77.0 – 79.9 %	F	00.0 – 59.9 %

2. Work Expectation:

Each week there are 2x 75 min lectures, and 2x 3 hour lab section. Expect to spend an additional 8-12 hours a week on the course.

You will spend additional time) completing Homework as well as preparing for Quizzes and Midterms for the lecture. You are expected to join class having done some related reading and chapter assignments.

A. Lectures**Quizzes and Chapter Assessments - 65% of Lecture Grade**

There will be two midterms and weekly quizzes as assessments. The schedule can be found in the course calendar. The assessments will consist of the material covered in lecture, and will also assess your problem solving skills. They might be a combination of multiple choice, True/False or free response questions.

- ***I will be testing for concepts.***
- ***I will provide Study Guides***

The quizzes will take place at the end of each chapter covered and will be administered on Canvas.

Final Exam - 20% of Lecture Grade

The final exam is not a cumulative exam and is worth 20% of your lecture grade. No make-up exam will be given if you miss the final. Final will take place during Finals week, on Wednesday March 29th from 11:30 AM to 1:30 PM.

Homework - 10 % of Lecture Grade

Coverage In Chem 1B the following Chapters will be covered from *Silberberg*: **Chapters 5, 12-17, 20** older editions are OK

Reading: Please read the assigned textbook chapters carefully **before** coming to lecture.

Problem solving: Additionally, you will be assigned problems from the textbook to follow up and to reinforce your knowledge of the topics. **There will be a homework problem set for every Chapter covered.** These problems will help increase your grasp of the material. Please make sure to work on and understand the sample problems available to you in your textbook before you attempt the assignment problems. Chapter assessments may include similar problems.

Participation - 5 % of Lecture Grade

As long as you show up and show effort, you will get full credit

Do not hesitate to drop in to the office hours if for any reason you think you are falling behind, need reinforcement of material or simply to say hi. Office hours are a crucial part of the support system the students have.

Remember “practice makes perfect” and “mistakes are the stepping stones to learning”. It is essential that you attempt as many problems as possible

E. POLICIES

PLEASE READ THE FOLLOWING POLICIES VERY CAREFULLY

- **Registration:** ***Enrollment is strictly limited to 30 students per section.*** Spaces are filled in accordance with the official class roster from Admissions and Records, followed by the official wait list. Any errors must be addressed directly with Admission and Records. Waitlisted students **sign in to the zoom meeting** for the first day of class, but may not be assigned a code until someone drops the course within the first two weeks
- **Policy on attendance:** Attendance of ***both*** the Lecture and Labs are required for the successful completion of this course. Unexcused absences will affect your grade. ***Attendance is expected for all lectures, all lab lectures and all labs. The De Anza College Chemistry Department does not offer make-up labs.***
- **Policy on missing class:** If you need to miss class you must notify me **at least 24 hours in advance** for approval. Missing a lab period may affect your grade negatively. If you have an excused absence, we can talk about ways to compensate for the missed lab.

You will be dropped from the course for any unexcused absences during the first two weeks of class.

Absences from lecture or lab will be evaluated on a case by case basis. It is your responsibility to contact the Instructor for any absences. Clear Communication is the best whatever the reason is. If I don't know your reasons, I can't be reasonable...

- ***Policy on late assignments/lab notebooks/lab report:*** Items turned in late will receive an automatic 5 % per day, up to 7 days. The most points you can get on an assignment is 65 % if it is more than a week late

ALL assignments, lab write-ups, reports, and exams must be completed and turned in to receive credit for this course. No exceptions. It is the responsibility of the student to arrange for make-ups for missed work.

Make Up Labs are not offered at De Anza. You will risk getting a zero for lab reports or prelabs if you have an unexcused absence

- ***Policy on Final exams:*** Final exam dates are determined by the De Anza College and cannot be changed. Please find the exam dates from your course calendar, and put all of the dates into your calendar.
- ***Dropping the course:*** Dropping the course must be done through the Admissions and Records office. ***It's the student's responsibility to withdraw from the course by the deadline set by the Admissions and Records Office.*** Dropping the course after the deadline will result in a (W-withdrawal) on your transcript.

Policy on plagiarism There's a zero tolerance policy for academic misconduct. You should remember as a De Anza College student, you agreed to abide by the policies of the De Anza College Rules of Conduct. It is expected that you are familiar with the code of conduct and disciplinary actions that may result from academic misconduct. ***All submitted work should be your own, and should represent your own grasp of the material. Cheating will not be tolerated.***

These policies are found in the De Anza College manual:

<https://www.deanza.edu/studenthandbook/academic-integrity.html>

Students who violate academic integrity policy (e.g. are caught cheating or plagiarizing) will be reported to the Dean of Student Services. Any plagiarized or copied material will receive a 0.

Student Learning Outcomes

- Evaluate the principles of molecular kinetics.
- Apply principles of chemical equilibrium to chemical reactions.
- Apply the second and third laws of thermodynamics to chemical reactions.

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*Apply principles of chemical equilibrium to chemical reactions.

*Apply the second and third laws of thermodynamics to chemical reactions.

Office Hours:

M,W	01:45 PM	12:15 PM	In-Person	MLC 105
TH	12:00 PM	01:00 PM	Zoom	zoom