

SCC283: AP Chemistry

A Second Course in Chemistry

2024/2025

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1 Course Description

Chemistry 283 is an advanced and rigorous high school-level offering designed to provide students with an in-depth understanding of fundamental chemical principles and their applications. This dynamic course delves into the intricate world of atomic structure, chemical bonding, thermodynamics, kinetics, equilibrium, acids and bases, electrochemistry, and more. With an emphasis on critical thinking and scientific inquiry, students will engage in challenging problem-solving exercises, hands-on laboratory experiments, and data analysis tasks that mirror university-level chemistry coursework. This course prepares students for the AP Chemistry exam, where successful performance can lead to college credit and a competitive edge in pursuing higher education in science-related fields.

2 Course Objectives

1. Develop a deeper understanding of the fundamental chemical concepts and theories.
2. Apply scientific principles to real-world scenarios and problem solving tasks.
3. Gain proficiency in designing and implementing laboratory experiments.
4. Enhance critical thinking skills by analyzing and interpreting experimental data.
5. Gain an appreciation for the role of chemistry in various scientific disciplines and daily life.

3 Required materials

- A bound composition notebook (laboratory notebook) used only for this class. I recommend grid paper.
- *AP Chemistry Premium Review, 2025* by Jespersen and Kerrigan
- A folder or binder to store papers that won't go in your notebook.
- Colored pencils (red, blue, and green is all you really need).
- Science Department approved safety goggles. (Bring these every day. Impromptu experiments often happen.)
- Roll of clear tape, double-sided preferred.
- A calculator capable of scientific notation.
- Your charged GBN device for:
 - Classroom (Join Codes; 3 Green: eoc4muy , 4 Green: 5nddmsp)
 - AP Classroom (Join Codes; 3 Green: JYNEPZ , 4 Green: 9LGZYY)

4 Grading

Term grades will be calculated using a category weighted point system in the following categories: Assessments (50 %), Experiments (30 %), and Activities and Practice (20 %).

Assessments will be structured similar to the College Board exam.

A final exam worth 20 % of the semester grade will be given during *final exam week* as outlined in the Glenbrook District 225 Student/Parent handbook. The spring term final exam will be worth 5 % of the semester grade.

Late work is not accepted. Collected assignments are due at the start of class. If the bell rings, it is officially late. Finally, I will not discuss grades during class or through email. Please make an appointment to discuss in person.

5 Class Climate and Procedures

1. I am committed to creating a classroom environment that values the diversity of experiences and perspectives that all students bring. Everyone here has the right to be treated with dignity and respect. Note that you should expect to be challenged intellectually by me and your peers, and at times this may feel uncomfortable. Indeed, it can be helpful to be pushed sometimes in order to learn and grow. But at no time in this learning process should someone be singled out or treated in a disrespectful manner.
2. Chemistry is an experimental science and a great deal of your time will be spent in the laboratory where numerous safety precautions will need to be taken. You are required to follow all rules and regulations to work in the laboratory. See the GBN Safety Contract for more information.
3. **Class begins at the bell.** Be in your assigned seat with your notebook out and ready to go before the bell rings.
4. **Electronic devices** Mobile phones are to be placed in your assigned, numbered slot. All other personal electronic devices should be put in your bag. Refer to section 6.80 of the Parent and Student Handbook for complete details.
5. **During lectures/discussions** you should be quiet, attentive, and taking notes in your composition notebook. Questions are always encouraged (often expected), but please raise your hand.
6. **During activities and experiments** stay with your group at your assigned table. Our laboratory space is small and unnecessary movement increases the possibility for injury.
7. **If you miss class:** Do not email me! First check the course website, PowerSchool, and then talk with a classmate. Any graded assignments will be fully described in PowerSchool.
8. **Academic Integrity:** I take this issue very seriously. Lack of knowledge of the academic integrity policy is not a reasonable explanation for a violation. Chat GPT and other related AI technologies are presenting new opportunities and challenged to teaching and learning. We will discuss this issue as needed during the year.

Note: This syllabus is subject to change based on the instructor's discretion and the needs of the class. Any modifications will be communicated in advance.