

AP Chemistry Course Syllabus

Department:	Science Department
Teacher:	Mr. Chasen Mock
Course:	Elective UC/CSU Approved (Area D – Lab Science); NCAA Core Course Approved
Pre-requisites:	1. A- both semesters in Chemistry OR B both semesters in Honors Chemistry 2. B+ both semesters in Biology OR B both semesters in Honors Biology 3. B+ both semesters in previous year's Math course of Honors Geometry or higher. 4. Completion of or concurrent enrollment in Honors Algebra 2/Trigonometry, 5. Precalculus or higher 6. Completion of the AP contract
Textbook:	Openstax: Chemistry 2E

Course Description:

Advanced Placement Chemistry is designed to be the equivalent of a first year college Introductory Chemistry course for science majors and as such is a valuable asset for any student with a desire to major in any science at college. Topics covered and presented in considerable depth include atomic theory, molecular bonding, kinetic theory of gases, chemical equilibria, reaction kinetics, acid-base chemistry, and thermodynamics. Given the strong emphasis placed on quantitative problem solving, this course is suitable only for students with very strong math skills. A mandatory summer homework packet must be completed for the first day of class. This course involves an extensive lab component and students meet one block period daily, in order to fulfill the College Board's requirement for college level lab sessions and class meeting time. All students are required to take the Advanced Placement examination in May.

Required Materials:

- Lab Notebook
- One 3-ring binder able to hold all class notes, papers, and old exams with binder paper & dividers
- Tablet or personal computing device
- Pencils and pens
- Scientific calculator

1st Semester	2nd Semester
Chemical Reactions and Stoichiometry	Thermochemistry
Gases	Thermodynamics and Electrochemistry
Chemical Kinetics	Chemical Bonding
Chemical Equilibrium	Intermolecular Forces
Acid-Base Equilibrium	Atomic Structure

AP Exam:

Students are to take the AP exam administered on May 5th, 2026 (8:00 AM).

Section I: Multiple Choice

60 Questions | 1 Hour 30 minutes | 50% of Exam Score

- Questions are either discrete questions or question sets, in which students are provided with a stimulus or a set of data and a series of related questions.

Section II: Free Response

7 Questions | 1 Hour 45 minutes | 50% of Exam Score

- There are 3 long-answer and 4 short-answer questions. Long-answer questions are worth 10 points each; short-answer questions are worth 4 points each.
- The questions assess all 6 of the course skills: models and representations, question and method, representing data and phenomena, model analysis, mathematical routines, and argumentation.

Grading: All students will have course assignments including homework, classwork and lab write-ups along with unit exams, which will comprise 80% of your grade. Your semester final exam will contribute the remaining 20%.

Labs: Students will spend a sufficient amount of time in the laboratory. They will learn and apply basic techniques and practice lab safety. Lab reports will be assigned for every lab. In addition, periodically a pre-laboratory quiz may be given to ensure that students have properly prepared themselves for the activity.

The lab grade will include each student's performance in the lab (behavior, proper technique, safety), completion of lab reports/worksheets, and scores on pre-laboratory quizzes.

Quizzes/Tests: Quizzes will be given regularly during each chapter. Quizzes may be announced or unannounced. Tests will be given out after each chapter or unit of study.

Homework: Homework will be checked daily and is due at the beginning of class. During distance and/or hybrid learning, assignments will be submitted through Google Classroom. Absent students are allowed the number of days they missed to make up work.

Late work: If you are present, but do not have the assignment completed, you may turn in your assignment the next class period for 50% credit.

Students will not receive credit for missing or unsubmitted assignments that were due in a previous grading period.

Academic Honor Code:

Cheating is defined but not limited to the following:

- Asking another student for his HW to copy or giving another student your completed homework to be copied
- Plagiarizing word for word an online source or a fellow students work to be used in your lab report
- Sharing any portion of an exam with another student via hard copy, cell phone photo, verbal communication, email, or text message

Technology and Taking Pictures, Videos, and Audio Recording:

- The Junipero Serra Student-Parent Handbook outlines an explicit policy regarding the use of technology in the classroom - including personal electronic devices. Personal electronic devices include but are not limited to cell phones, ipads, ipods and any music and/or recording devices. All electronic devices must be silenced and out of sight unless required by a teacher for an educational purpose. The student's personal electronic device must be used in a manner consistent with the School Acceptable Use Policy.
- Please note: "Students may not use any device to take pictures, videos or audio recordings at any school event unless previous authorization has been granted by the school. Any improper use of technology where a device has been used to take an inappropriate picture of another person or a picture has been taken without consent is considered disruptive and harmful to the Junipero Serra High School community. This includes but is not limited to improper snapshots of people, places, phone/computer contents, items, tests and other documents. Students who film, photograph or record anything without expressed consent from a teacher or administrator will be subject to immediate suspension and/or expulsion." (p.54 of the Student-Parent Handbook).
- All electronic, communication or recording devices are not allowed in your possession during tests. If a student is found to have a prohibited device in his possession during a test, he will receive an extra 3 hours of detention on top of an honor code violation and its associated penalties (p.23 of Student-Parent Handbook). If devices are stored in a designated area during class time, students are responsible for retrieving their own devices from the teacher. Likewise, the teacher is not responsible for any damage that might occur to the phones while they are being stored.
- Students are not permitted to leave the classroom with their phones during class time. The teacher will set up a location for storing phones while students are out of the classroom.
- As stated in the Student-Parent Handbook, "For the safety and good order of the school wireless headphones, earbuds and similar technology will only be allowed during class and/or independent study periods when permission is granted by a teacher or staff member." (p.52 of Student-Parent Handbook).

Science Department AI Policy

To be fair to everyone, teachers need to check and grade your work based on the rules of our Honor Code. According to our Honor Code, you can't work together without permission or use someone else's work as your own. Using ChatGPT or other AI is like working with a partner or copying someone else's work. Doing so will be considered a violation of the honor code.

Just like when you are allowed to work in a group on assignments, teachers may give you permission to use generative AI on assignments. Each assignment will have a clear statement describing the use of this type of software.

***** If you do not see a written statement on the assignment giving you permission, you may not use AI software on any assignments for any reason. *****

With the permission of your teacher, the following uses of generative AI are considered acceptable:

- Using AI programs in search engines
- Asking AI programs for clarification or explanations when you need help
- Generating ideas, topics, and writing prompts
- Refining the grammar and punctuation of your written work

Even when you are given permission to use AI, the following uses are **NEVER** acceptable:

- Copying text or images from AI programs without proper citation or acknowledgement
- Using AI text or images without fact-checking or checking for plagiarism of sources
- Using AI programs to avoid doing your own work

NOTE: This policy may be updated throughout the year as use and technology change.

Things to remember:

AI programs can have bias and present incorrect information. Anytime you use an AI program, you should be thinking critically and fact-check using primary sources. You are responsible for all the information you turn in for your assignment. Be sure it is correct and not plagiarized.

Be transparent - if you are given permission and do use AI, be sure to cite or acknowledge AI text and images properly when you use them.

If you do not have a clear statement from your teacher, the use of a generative AI like ChatGPT is considered a violation of the honor code. These violations will be treated as any other honor code violation with the same consequences as described in the handbook.

Expectations

AP Chemistry is about the closest thing to a college level course you can take in high school. It is fast paced, challenging at every turn, and will prepare you extremely well for taking advanced science classes in college. As a result, you will be held to a very high set of expectations and mature responsibilities.

You must attend class and be on time every day. Should you miss class, you will need to get the daily assignment from the class website and turn it in per class guidelines without waiting for a reminder from the instructor. Everyone in the class is expected to participate in class discussions and lab discovery on a daily/weekly basis. This course can produce thousands of questions! It is your responsibility to ASK as often as possible and to seek out answers from as many resources as possible, including but not limited to your teacher, your lab group mates, and literature references.

This is a class with college level expectations for behavior, participation and effort. Students will need to work outside of class and complete readings independently in order to learn and understand all material.

Classroom Conduct

Students are expected to behave according to the standards published in the Student/Parent Handbook.

I expect all students to do the following:

- Respect classmates and teacher
- Be prompt and in your seat when the bell rings
- Keep language and classroom clean
- Cell phones turned **OFF** and out of sight during class
- **NO FOOD** in the classroom
- Students are to have goggles on at all times during lab

Absolutely **NO FOOLING AROUND** during lab activities. Any student found using equipment outside the teacher's instruction will receive a **ZERO** for the lab and disciplinary action.