

ADVANCED PLACEMENT (AP) CHEMISTRY

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AP Chemistry is a course designed to provide students with the opportunity to participate in an authentic college-level science experience. This course is composed of lecture and laboratory components. This course gives the students the opportunity to earn advanced placement credit, which may then be used as either college credit or a class waiver, depending on the student's AP test score and the policies of the college in question. All AP Chemistry students must participate in the lab portion of the course. All AP Chemistry students are expected to take the AP exam, which will be offered in May.

COURSE TOPICS:

- I. Structure of Matter (the nucleus, electronic arrangement of the atom, bonding, materials)
- II. States of Matter (bonding, intermolecular forces, phase changes/diagrams, ionization)
- III. Reactions (synthesis, single and double replacement, oxidation-reduction, acid/base, combustion, decomposition, disproportionation.)
- IV. Descriptive Chemistry (naming, reaction writing, use of symbols and energy diagrams)
- V. Quantitative Reasoning (stoichiometry, concentration, process analysis, algebra, trigonometry, use of logarithms, measurement and significant figures)
- VI. Thermodynamics, Kinematics, Gas Laws, Periodicity, Polarity, Molecular Geometry and Equilibrium
- VII. Laboratory (includes a student designed experiment)

CLASSROOM POLICIES:

1. TIMELINESS

AP Chemistry is a very fast-paced course and students will benefit from timely and frequent feedback on their progress. Resultantly, **LATE ASSIGNMENTS WILL BE PENALIZED.**

All assignments are due within the first few minutes of class – before they are physically collected!

-In Class Late: (-5%) This applies to work that was turned-in, in class the day it was due, but after the required time.

(This occurs after I have given multiple reminders and have physically picked-up the assignments.)

-Late/Labs: (-10%/day) This deduction is based on the point total, not the remaining points. Any assignment turned-in after class will have a deduction of 10%. A group lab report can be turned-in during **ANY** class period in which there is a group member.

2. MATURITY

Due to the advanced nature of this course, students are expected to conduct themselves in a mature and responsible manner. Laboratory safety is a primary concern and a **FAILURE TO FOLLOW LABORATORY SAFETY GUIDELINES WILL RESULT IN DISMISSAL FROM THE LABORATORY AND A FAILING GRADE ON THE LABORATORY ASSIGNMENT (ACTIVITY).**

3. MISSING ASSIGNMENTS

Students are responsible for all work missed due to absence and are expected to complete all make-up work, including labs, according to the following guidelines:

-Tests/Quizzes. All test dates are provided well in advance. Tests usually occur 2 or 3 days after the completion of a unit. Due to the amount of time allowed for preparation, the expectation is that you will complete the test/quiz **IN CLASS** on the day you return. Mr. Collins must approve any exceptions to this policy (Talk to me, call me, e-mail me, etc. **before** you return to class. It is **YOUR** responsibility).

-Labs. Each student will choose a lab day (Tues, Thurs or Fri). If they cannot attend lab due to sickness/excused absence, lab make-up will be conducted on Friday. If Friday is not possible, a make-up lab report will be submitted (see guidelines). Two make-up reports will be allowed per semester.

LAB DAYS THAT ARE MISSED AND NOT REPLACED WITH A PAPER/MAKE-UP ACTIVITY WILL RECEIVE NO CREDIT.

***ALL ABSENCES MUST BE EXCUSED IN ORDER TO MAKE-UP MISSED ASSIGNMENTS. EXCUSED ABSENCES ARE CALLED-IN FROM HOME AND ACCOUNTED FOR IN THE SCHOOL'S ATTENDANCE PROGRAM. IT IS THE STUDENT'S RESPONSIBILITY TO MANAGE/FOLLOW UP ON THEIR EXCUSED ABSENCES. THIS MUST BE DONE EXCLUSIVELY THROUGH THE MAIN OFFICE.**

4. COMMITMENT

Students are expected to contribute to each other's learning. Students should come to class prepared and should pay attention in class. Students who have not completed a pre-lab document prior to entering lab will be asked to leave and submit a make-up report (This will count as one of the two allowed deviations from your lab sign-up day). It is imperative that the learning environment be respectful and complimentary to all students. The formation of study groups is encouraged and students in the past have greatly benefited from collaborative efforts. However, it is very important that the actual homework and lab reports be your own.

5. ACADEMIC FRAUD

Plagiarism is presenting someone else's ideas or work as your own. When labs are completed in teams, the reports are expected to have the same data, but they should differ in terms of discussion, conclusions, and interpretations. Students who supply answers or allow other students to copy their work are every bit as responsible as those who are doing the cheating. **NO STUDENT WILL BE GIVEN CREDIT FOR AN ASSIGNMENT INVOLVING ACADEMIC DISHONESTY.** These students will also be reported to their parents and to a school administrator. *See Code of Ethical Behavior

LABORATORY GUIDELINES:

AP Chemistry Lab will meet during 8th period.

Students will be required to maintain a laboratory notebook and complete formal and informal laboratory reports. Special attention must be paid to the format of the lab write-up and to observations. How can one conclusively state what happened if it is not supported with data and observations?

Students will have lab once a week. At the beginning of each semester, students will choose lab sections (Tues-Fri). When choosing this section, the student will focus on mitigating scheduling conflicts (sports, band, clubs, etc.) as well as choosing lab partners that will enhance their academic experience. It is the expectation that students will attend their chosen lab section. If they cannot make it to lab or to the Friday make-up their lab report will consist of a written report. Two make-up reports will be allowed per semester. As a result of the advanced nature of our laboratory work, all students and their lab partners will frequently need to stay past the end of 7th period to complete the lab, clean up, etc. Most labs will be complete by 4:30 pm.

YOU ARE RESPONSIBLE FOR ADJUSTING YOUR AFTER SCHOOL SCHEDULE AND ENSURING THAT YOU HAVE TRANSPORTATION. ALL LAB MEMBERS MUST BE PRESENT FOR THE COMPLETION OF THE GENERATION OF DATA. IF YOU ARE NOT PRESENT, HOW CAN YOU SAY YOU OBSERVED A TREND? A CHANCE TO CHOOSE NEW LAB PARTNERS AND LAB DAYS WILL ARRISE AT THE BEGINNING OF EACH SEMESTER. DO NOT SCHEDULE APPOINTMENTS ON DAYS THAT YOU HAVE COMMITTED TO LAB!

TESTS AND QUIZZES:

Major tests and quizzes will be announced several days in advance, however short quizzes on current material will often occur unannounced and students should come to class prepared. It is imperative that the assigned reading list and practice problems are completed in a timely manner. All major tests will include multiple choice and/or short answer essays/calculations. Any student taking a make-up test can expect an alternate test format.

INDIVIDUAL ASSIGNMENT GRADES = (points earned ÷ total points) x 100

OVERALL QUARTERLY GRADES will be assessed via the following weighted categories.

-LABORATORY WORK, LAB QUIZZES AND REPORTS	40%
-CLASSROOM TESTS & QUIZZES	60%

SEMESTER GRADES will be based upon the following format:

FIRST SEMESTER

First Marking Period = 40%, Second Marking Period = 40%, Cumulative 1st Semester Final = 20%

SECOND SEMESTER

Third Marking Period + Fourth Marking Period = 80%, 2nd Semester Project/Report = 20%

GRADE POINT TOTALS will be based upon the following percentages:

A 93.0 - 100.0%	A- 90.0 - 92.9%	B+ 88.0 - 89.9%	B 83.0 - 87.9%	B- 80.0 - 82.9%
C+ 78.0 - 79.9%	C 73.0 - 77.9%	C- 70.0 - 72.9%	D+ 68.0 - 69.9%	D 63.0 - 67.9%
D- 60.0 - 62.9%	F 0 - 59.9%			

Grading Curves

Grading curves or statistical shifts will rarely be used. If a curve is used it will be based on the highest score(s) out of **ALL** AP Chemistry students. This data will determine the total points for an exam.

Final Grade Percentages are NOT DEBATEABLE. Your score will fall within one of the percentages stated above. There will be no rounding of final semester grades. An 89.9% is a B+!

Test Corrections

Test corrections can be completed to raise a poor test grade up to a 70% grade (C-). Test corrections can be completed two times per semester on a date or dates specified for each test. See test corrections document for details. This corrections policy applies to unit exams. It does not apply to quizzes, labs or the semester final exam/semester final project.

Expectations

I consider the school year, marking periods and semesters to be framed by their starting and end dates. If a student has issues related to curriculum or grades, it is best that they contact me in person. I would prefer to have a face-to-face exchange where we can really communicate about class concepts or grading decisions. These are difficult discussions to have over e-mail as it is often important to see graphics, emotions, math or examples. These are also difficult discussions to have as a second party exchange (e.g., A parent initiates and participates in the discussion only to explain it to the student. *Many nuances and intentions are missed in this case.*) I also believe upperclassmen in a college-equivalent course should learn to advocate for themselves in a productive way. The student should initiate all discussions related to grades in a timely manner. It is important to initiate a discussion about grading BEFORE the end of the first semester and BEFORE the completion of the school year.

Times I am available for help:

1. At the beginning of lunch Monday through Friday.
2. During 8th period on most Mondays and Wednesdays. I can potentially meet 8th period on Tuesday as well, but due to child care it is less likely.

LETTERS OF RECOMMENDATION

After the completion of the second semester project I will have a very good feeling about all students with regard to academic ability and commitment. I will have graded multiple tests and labs as well as observed students in the lab setting. Hopefully, I will have had in-depth discussions with each student at this point. Upon the completion of the year, I will choose approximately 25% of my students to recommend. They will be informed of this decision and a description of the recommendation process in an email. I am mainly looking for the following themes: academics, problem solving, responsibility, personality, and college readiness. I must feel comfortable recommending you to a school based on your academic ability and personality. I will not recommend students who simply have good grades.