

AP/KAP Chemistry Syllabus—2006-2007

Mrs. Bloom

Web page: <http://www.hilliardschools.org/classroom.cfm?id=301>

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Background: A.P./KAP Chemistry is a **college-level** chemistry course. It is a *second-year course*—students should have successfully completed Chemistry in their sophomore or junior years of high school. Prerequisites include three credits in Math, one credit in Biology, and Chemistry with a “B” or better average.

Students will earn one and one-half credits of AP level laboratory science. The course is taught as a “1 ½ block” course—students will alternate between single period and double period. The double period on alternate days will allow us to complete the more rigorous laboratory activities required by the AP curriculum. Classes will either be 50 minutes or 104 minutes in length, with an average of 375 minutes of class time each week.

Students will be able to earn college credit by scoring well on the AP Chemistry test. The test will take place on Tuesday, May 15 in the morning.

Required Texts:

Hill, John. W, Petrucci, Ralph H, et. al., *General Chemistry*, 4th ed., Upper Saddle River, NJ: Pearson Education, Inc., 2005.

Vonderbrink, S. A., *Laboratory Experiments for Advanced Placement Chemistry*, Batavia, IL: Flinn Scientific, Inc., 1995

AP Chemistry Free Response Book designed for Hilliard City School District

Supplemental:

General Chemistry companion website (access from my webpage→ap chemistry)

Fees: Fees cover the laboratory costs, AP Chemistry Free Response Book, bound lab record book, and ChemMatters. The fee does not cover the cost of tie-dye in the spring. Goggles are available in the school store.

Supplies: Bound lab record book (provided as part of class fees), **approved safety goggles** (note—safety glasses are *not* an acceptable substitute for goggles), scientific calculator (graphing calculator will prove most helpful), notebook with separated sections for notes and homework, pens, pencils, highlighters

My Classroom Expectations can be summed up as follows:

1. **Be nice to everyone**
2. **Act in a safe manner**
3. **Take responsibility for your actions**
4. **Work hard**

The details...

About attendance:

Because much of this course is centered on group-work, attendance is important. **You** are responsible for showing excuses for tardies or absences, for obtaining any missed assignments and for making them up. This includes getting the class notes, completing homework, and making up any tests, quizzes, or labs. **Note: Labs must be made up after school. Occasionally they may be made up during study hall.**

*According to school policies, you will have as many days to make up assignments as you have missed; after that they are considered late. **You must arrange time with the teacher to make up missed work.**

About academic honesty:

Do your own work. Do not copy. Show all calculations, not just the answer. Papers found to be similar to other students will be given an F grade. All material that is not your own should be cited—do not plagiarize other students or reference material (including the internet).

About evaluation:

There are a variety of ways to evaluate students in AP Chemistry.

Tests and quizzes	55%
Labs and projects	35%
Free Response Questions/Homework/Participation	10%

If a student does not turn in a lab or project, the student will receive an *incomplete*. **NOTE:** This is an *incomplete for the quarter (semester, year)* until the project is turned in! Poor quality work will be returned to the student to redo and will be counted as late when it is turned in.

About homework:

You should expect to spend a significant amount of time on homework and practice problems. It is your chance to practice and to figure out what you do and do not understand without having to worry about penalties.

There is no purpose in copying someone else's homework—it is to help *you* understand the material. Students should not turn in homework answers without showing work—it will not be accepted. Answers are usually available in the back of the textbook—the key is to understand how to get to the answer.

Old AP Test questions ("Free Response Questions") are collected and graded for all students. Whether or not textbook questions are collected depends upon your grade on the previous test. Students who receive an A on a test do not need to turn in homework for the next chapter. Students with "B" test grades have some homework to turn in. Students who do not achieve at least a B will have additional homework to turn in.

Homework is an important part of this class. It is a college level course—you are responsible for completing the homework on your own!

About labs:

- You will be expected to know and observe safety rules **every** time we are in the laboratory. You will not be permitted to participate in labs until your safety contract is on file.
- READ THE LAB AND COMPLETE PRELAB before class. You should have the purpose and procedure outlined in your lab notebook and data tables ready to go. Prelab worksheets should be turned in *before* you begin the lab activity. You will waste valuable time if you need to complete these in class, before starting the lab activity.
- You should come to lab DRESSED APPROPRIATELY, including SAFETY GOGGLES AND APRONS. If you do not have a pair of approved safety goggles, you should buy a pair from the school store. If you are not wearing your goggles during a lab, you will receive **one** reminder. If it is still a problem, you will be asked to sit down and lose credit for that lab experiment.
- **Food and drink are never permitted in a laboratory. This includes the entire room. This includes bottles of water, pop, etc.**
- Participation in lab includes being prepared, following directions, observing SAFE procedures, CLEANING UP the lab and equipment, and protecting equipment. Messy labs are dangerous labs, and leaving a laboratory bench in such a condition will affect your grade.
- **ABSOLUTELY NO HORSEPLAY.** This type of behavior will result in removal from class, a phone call home, and possibly a disciplinary referral.
- If you choose not to follow any of the class requirements, laboratory privileges may be revoked. You will be given written lab assignments for partial credit.

About tests and quizzes:

- Tests and quizzes serve several purposes: they are typically viewed as a way for me to evaluate your progress, but they are often learning experiences for students.
- Tests will always be announced at least two days prior. Quizzes will almost always be announced. They may be written or practical tests.
- To receive full credit on tests and quizzes, show all calculations. Explain your answers completely and concisely—explanations help me to understand your thoughts.
- Each new test will include material from previously studied chapters as well as the summer review. Quizzes over earlier material will appear throughout the year.
- Tests will often include sample free response questions from previous AP Chemistry tests

About late work:

- Daily homework should be turned in on time. Students will be given a one-day grace period. Homework may be turned in for half-credit until the day of the test for that unit. Homework will not be accepted after the test.
- Old free response problems should be turned in on time. Students will be given a one-day grace period. Free response problems that are turned in 2-5 days late will receive 75% credit; after that they will receive half-credit. No make-up free response problems will be accepted during the last week of the quarter.

About the AP Test:

- Success on the AP test requires *significant effort outside of class*.
- **All students are expected to take the AP Chemistry Test.** In *extremely rare* circumstances, a student may decide not to take the AP test—that student should expect an additional graded assignment on the day of the AP Test.
- We will spend time in class reviewing for the AP test—**all students will be responsible for the material, regardless of whether they take the actual AP test.** This may include practice AP Test questions that are scored as the College Board scores them. These questions may count towards a student's grade.
- **ALL** students will take a full-length practice AP Chemistry test. The questions will be taken from previous AP tests. It will be scored as an AP exam. The grade will be part of the fourth nine weeks test average.

Approximate schedule

Topic	Approximate time	Textbook Chapters (H&P)
Review, including empirical formulas, nuclear chemistry, nomenclature, limiting reactants and theoretical yield	2 ½ weeks	1, 2, 19, 3
Reactions in aqueous solution, including precipitation, acid-base, redox, molarity, net ionic equations, solution stoichiometry	3 ½ weeks	4
Gas laws and kinetic molecular theory	2 ½ weeks	5
Equilibrium	3 weeks	14
Acids and bases	2 ½ weeks	15
Acid-base equilibria including buffers, pH indicators, and titrations	2 weeks	15
Thermochemistry and thermodynamics	2 weeks	6, 17
End First Semester		
Kinetics of chemical reactions	3 weeks	13
Electronic structure and the periodic table	2 weeks	7, 8
Ionic and covalent bonding and molecular structure	3 weeks	9, 10
Precipitation equilibria and complex ions	< 1 week	16
Electrochemistry	2 ½ weeks	18
Liquids, solids, and solutions, including intermolecular forces, liquid-vapor equilibrium, phase diagrams, concentration, and colligative properties	2 weeks	11, 12
AP Test Review		
More qualitative analysis, assorted labs, and Final Project	3 weeks	