AP CHEMISTRY SYLLABUS

Course Overview
This course is designed to be comparable to a college-level general chemistry course. Successful completion of this course and the AP Examination may fulfill the college requirement for freshman chemistry and the associated lab. Students taking this course will be substantially better prepared for any college science course due to the intensive nature of study required by the content covered, the math involved, the use of higher-level thinking skills, and the more involved laboratory experience. Major topics covered will include the structure of matter, states of matter, chemical reactions, kinetics, thermochemistry, equilibrium, acid-base, and electrochemistry. Students will learn numerous chemical calculation skills in the study of the content, and in the analysis of lab data. A portion of the course time will consist of participation in laboratory activities that are aligned with the AP Course Description.

Prerequisites
Students should have completed a Chemistry I Honors level course with an A or high B, and have comparable high level math skills, typically through Algebra II. Optionally, motivated, high-level science students may take double-blocked AP Chem/Chem II as a sophomore or junior without the Honors first.

Textbooks
We supply: *Chemistry* by Zumdahl and Zumdahl, 8th edition,
I highly recommended students purchase: Barron's AP Chemistry, 9th Edition (the most recent edition).
In the second half of the year I will make the Prentice Review AP Chem study books available.

Classes
We will meet daily (5 days per week) single or double-blocked each day. I hope to have at least one lab per testing period which will be dedicated to lab experiences that relate to the topics that are being covered in class. You need to be in class, on time every day in order to perform well in this course. The policy in your student handbook will be followed. You will have no longer than one week following an excused absence to complete makeup work or missed labs in order to receive credit. The best policy for success is to be in class! It is the students' responsibility to follow up on missed assignments, not the teacher's. **RESPECT**, **RESPONSIBILITY** and **MATURITY** will guide all of our classroom behavior. The intensity of this course and the associated labs will require a higher level of maturity and seriousness than a typical high school class. Disruptions and immature behavior are unacceptable and may result in your removal from this course.

Tests
We will be following the "Big Idea" format of AP Chemistry – so material on a test may cover a chapter or portions of several chapters. The test may include cumulative questions. Tests will consist of multiple choice and free-response type questions. The test format will evolve during the year to become more similar to the actual AP exam. See test correction rules below.

Labs
Safety in the laboratory is of primary importance. The lab manuals, equipment and the materials necessary for the lab component of this course will be supplied. Labs will typically be performed in the "hands-on" or "wet" format. Several of the "wet" labs will be done in microscale. A few of the labs are performed "dry" (no actual chemicals) and/or virtual (online). Students will physically manipulate the equipment and materials in the lab in order to make observations and collect data. They will analyze the data to form conclusions and verify hypothesis, and they will compare and communicate about their results and procedures. In addition, teacher and student-led demonstrations of chemical concepts will enhance the laboratory component of this course. Concepts learned from the laboratory portion of the course may be assessed by a quarterly quiz and/or test questions.

Lab Notebook

Each student must keep up with the labs performed throughout the year. Lab write ups must be your own work even if the lab was performed and discussed as a group. Any write up on these labs will be checked and graded periodically, generally expected within 2 days of performing the lab. Do not let this fall behind! Colleges may request to see your AP labs or notebook prior to granting college credit.

Quizzes

Quizzes will be given frequently after reading assignments as a "formative" assessment of your grasp of basic concepts in the chapter or topic. There will also be frequent quizzes to assess grasp of calculations. Quizzes will be frequent and may be given without prior notice. They will evolve to the format of AP Multiple Choice and Free Response questions.

Unit Tests and Chapter Tests

Unit tests and chapter tests will be a combination of multiple choice and free response questions. In addition to mathematical and conceptual questions on each chapter test, there will also be lab based questions on every chapter test. The lab questions ARE NOT eligible for test corrections and will have their own section on the test. Chapter tests will be given at the beginning of class and will be 30-40 minutes long.

If you are absent the day before a test and we did not cover any new material or review for the test, you will take the test at the scheduled time. If you are absent the day of the test and no new material or review was missed, you will take the test when you come back. If you were absent for new material or review, you will receive the same amount of days to catch up as you were absent. Tests are naturally comprehensive, as some of the concepts overlap among topics.

Testing Rules

1. Unless informed otherwise, calculators will not be allowed on the multiple choice portion of tests. Calculators will be allowed on the FRQ portion of the test. I will provide an equation sheet.
3. All cell phones must be turned off. If you are caught using a cell phone for any reason during the chapter or unit test, you will receive a zero.
4. There will be no sharing of calculators. You are responsible for bringing a calculator to the test or I will provide one for you.
5. No bathroom breaks during the test unless there is an emergency. If you do go to the bathroom, you must leave your in the classroom.
6. Test corrections must be complete and correct. Conceptual questions must have a correct and thorough explanation (not just restating the answer) and math questions must show ALL work. .

Test Correction Rules

a. Students are allowed to do test corrections. Generally this will mean, giving the correct answer for the question missed and the reason why the correct answer is correct. Students will receive half the points back and the test correction score can only reach 85%.

i. In order to receive half of the previous points back, the student MUST SHOW ALL WORK and indicate the new answer. Of course, the new answer must be correct. Incorrect answers and answers with no work will result in zero points. Conceptual questions must have a correct and thorough explanation.

ii: Students cannot lose points by participating in test corrections. Their score can only go up.

4. Notes WILL NOT be allowed during test corrections. The only reference the student may use during test corrections is the work they did during the test. I will staple this work to the test when you turn it in.

***Test corrections are meant to reward those students who do their work and are willing to put in a little extra time for a better grade. The goal is for the students to go back and improve their understanding of the concepts or problems they did not do well on. OVERALL CURVES ON CHAPTER TESTS WILL NOT BE GIVEN.

Test Correction Procedures

1. I will have your chapter test at my desk. When I give you your test, take a seat.
2. Take out a separate sheet of paper and write TEST CORRECTIONS on the top of the page.
3. For multiple choice, put the number of the problem you got wrong and write AND circle your new answer. If the problem is conceptual, explain why your new answer is correct. No explanation or a wrong explanation equals 0 points. If the problem is math based, show all work you used to get the new answer. The work MUST be correct to get the credit.
4. For free response/essay problems, only redo the parts you missed. Write the number and the part (a, b, or c for example) and show all work needed to get the correct answer. Circle the correct answer. If you received continuation points (cont.), you DO NOT have to redo it.

Homework

There will be homework assignments after each concept is taught. Problems will come from the book and occasionally there will be problems from supplemental material. All problems are expected to be done by the specified due date. If you can't get the answer, you should at least set up the problem like we did in class or refer to the homework steps document for guidance. For conceptual questions, you must give an acceptable explanation. There is a VERY LARGE focus on conceptual understanding and the ability to explain your answer with math AND words. If you write nothing, you have obviously not given the required effort. If you do not do the homework I can assure you that you will not do well on the exams. Chemistry is learned through practice. Just watching me do the problems is not enough.

Attendance

Being in class is absolutely vital to your success in this course. If you know you will be absent for a valid reason (school activity, family issue), please inform me so I can give you your assignments ahead of time. All class and lab work must be made up in a timely manner, or the student will receive a zero. CHECK THE WEBSITE FOR ASSIGNMENTS IF YOU ARE ABSENT!! ABSENTEEISM IS NOT AN EXCUSE.

Class Rules

1. NO ELECTRONIC DEVICES OF ANY KIND AT ANY TIME. READ THE SIGN ON THE WALL.
2. No food or drink (including gum). Bottled water with a top is the only exception.
3. Respect the equipment and your classmates.

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Lab

2. All students are expected to exhibit mature behavior during all labs. Any horseplay will not be tolerated.
3. There will be a grading rubric posted online that tells you exactly what I expect for each lab. I highly recommend that you use these rubrics so you don't miss anything. There will also be a sample lab report posted for each lab 1 or 2 days before the chapter test so you can compare your answers and explanations to mine. We will also have a lab discussion as part of the chapter test review. There will be questions based on the lab reports on every chapter test so it is important that you do the lab reports in order to answer the test questions correctly. THERE ARE NO TEST CORRECTIONS ON LAB BASED QUESTIONS.

*** Syllabus is subject to change***